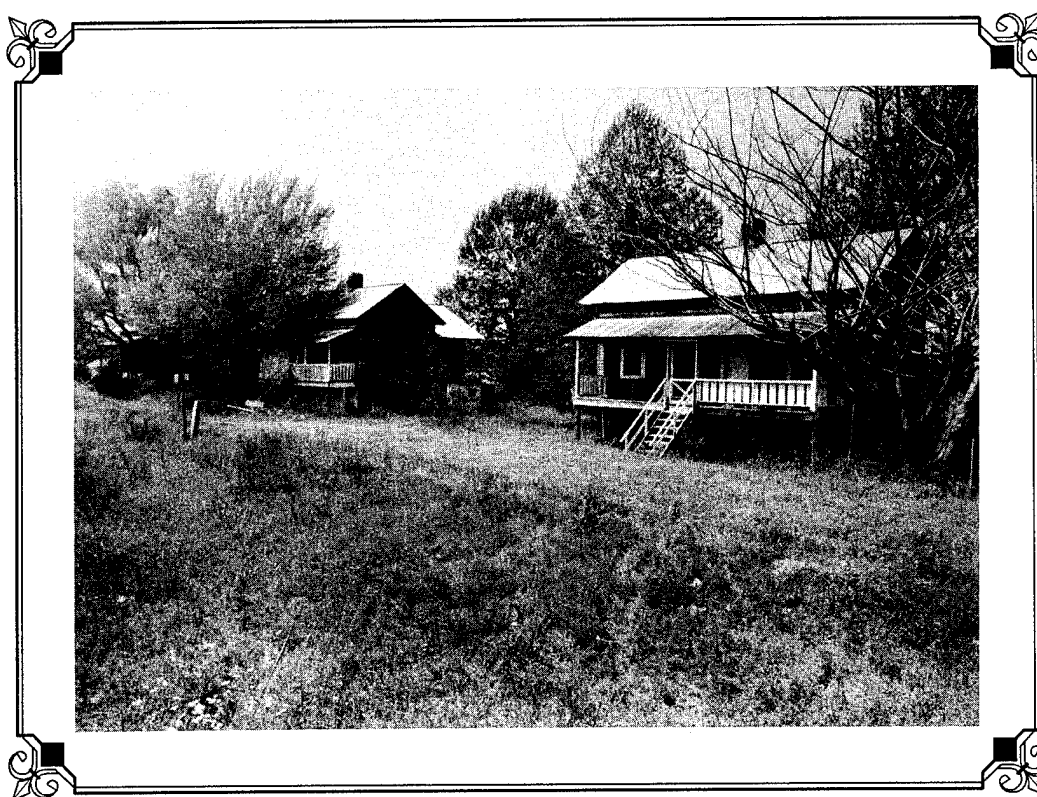


# NATIONAL REGISTER DOCUMENTATION OF THE MAHANNAH FARMS RAILROAD SECTION HOUSES AT FLOWEREE, MISSISSIPPI

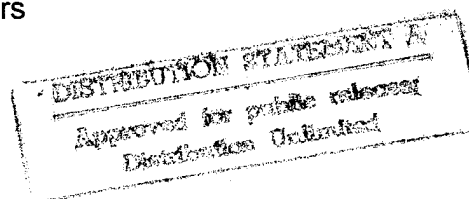
Robert E. Johnson

William R. Adams



Prepared for:  
U.S. Army Corps of Engineers  
Mobile District  
Mobile, Alabama

Prepared by:  
Florida Archeological Services, Inc.  
4250 Melrose Avenue  
Jacksonville, Florida 32210



19950824 163

**NATIONAL REGISTER DOCUMENTATION OF THE MAHANNAH  
FARMS RAILROAD SECTION HOUSES AT FLOWEREE, MISSISSIPPI**

Prepared for:

U.S. Army Corps of Engineers  
Mobile District  
109 St. Joseph Street  
P.O. Box 2288  
Mobile, Alabama  
36628-0001

Contract No. DACW01-94-P-0627

By:

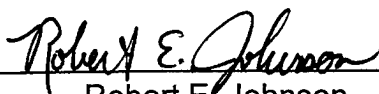
Robert E. Johnson and William R. Adams

With:

H. Robert Overly, Historical Architect  
Judy Davis, Photographer

Submitted by:

Florida Archeological Services, Inc.  
4250 Melrose Avenue  
Jacksonville, Florida  
32210

  
Robert E. Johnson,  
Principal Investigator

November 1994

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER ACOE/SAM/PDER-95/001	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) NATIONAL REGISTER DOCUMENTATION OF THE MAHANNAH FARMS RAILROAD SECTION HOUSES AT FLOWEREE, MISSISSIPPI		5. TYPE OF REPORT & PERIOD COVERED Final
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Robert E. Johnson and William R. Adams		8. CONTRACT OR GRANT NUMBER(s) DAWC01-94-P-0627
9. PERFORMING ORGANIZATION NAME AND ADDRESS Florida Archeological Services, Inc. 4250 Melrose Avenue Jacksonville, Florida 32210		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Department of the Army Mobile District, Corps of Engineers Mobile, Alabama 36628-0001		12. REPORT DATE November 1994
		13. NUMBER OF PAGES 59
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Level 1 HABS/HAER recording; architectural and historical documentation; railroad section houses; late 19th/early 20th century railroad history.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) During the spring and summer of 1994, Level 1 HABS/HAER documentation was completed on three (3) railroad section houses at the Mahannah Farms in Floweree, Mississippi by Florida Archeological Services, Inc. of Jacksonville, FL. The purpose of the project was to achieve Section 106 mitigation via architectural and historical documentation. During the project both measured drawings and large scale photography were employed to meet project goals. Completion of this study has contributed to the history of life on a railroad section crew in the Mississippi River/Yazoo Delta region during the late 19th & early 20th centuries.		

## Abstract

During the spring and summer of 1994, National Register documentation of the railroad section houses on the Mahannah Farms tract at Floweree in Warren County, Mississippi was conducted by Florida Archeological Services, Inc. of Jacksonville, Florida. Prior assessment of the structures was completed in 1993 during a cultural resources assessment survey of portions of the Tennessee-Tombigbee waterway wildlife mitigation project. During the completion of the current study, the Mahannah Farms section houses were subjected to Section 106 mitigation via architectural and historical documentation.

During the documentation project, the Mahannah Farms section houses were subjected to Level 1 HABS/HAER documentation which included the completion of both measured drawings as well as photographic documentation using large format photography. The completion of this study has contributed to the history of life on a railroad section crew in the Mississippi/Yazoo Delta during the late 19th and early 20th centuries.

Acquisition For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution	
Availability Codes	
Avail	Special
A-1	



## Acknowledgements

The authors of the Mahannah Farms railroad section house documentation project would like to thank a number of people who provided assistance with the completion of this project. We would like foremost to thank Ms. Dottie Gibbens of the Mobile District, U.S. Army Corps of Engineers for her assistance in completing the section house study. Mr. Elbert Hilliard of the Mississippi Department of Archives and History and Dr. John Hebron Moore, Mississippi historian of Tallahassee, Florida were very helpful during the completion of archival and background research for this investigation.

Mr. C.B. "Buddy" Newman, former speaker of the Mississippi House of Representatives, provided significant information regarding the Illinois Central Railroad's operation in the Mississippi Delta during the late 19th and early 20th centuries. Mr. Newman provided access to his private collection of maps, photographs, and references pertinent to the history of the railroad industry in the Mississippi Delta, as well as information about the section houses at Floweree. Mr. Newman, who was born in a railroad section house at Valley Park (which he owns), maintains a small but well-stocked railroad museum which we toured, as well as a motorized section car in which we were given the opportunity to ride the length of rail on his property. The assistance of and the opportunity to "visit" with Buddy Newman, provided significant insight into the way of life on the railroad during the period of time when the Mahannah Farms section houses were in use. His assistance is greatly appreciated.

The personnel of Florida Archeological Services who worked on the project included Mr. Bob Johnson, Principal Investigator; Dr. William R. Adams, Historian; Mr. H. Rob Overly, Historical Architect, and Ms. Judy Davis, Photographer. During the project, Johnson and Adams conducted background research and informant interviews. While Overly and Johnson prepared the measured drawings in the field, Davis conducted photographic documentation of the Floweree section houses. The report was authored by Johnson and Adams.

## Table of Contents

Abstract .....	i
Acknowledgments .....	ii
Table of Contents .....	iii
List of Figures .....	iv
List of Tables .....	v
I. Introduction .....	1
II. Survey Field Methods .....	3
Historical and Archival Research .....	3
Photographic Documentation .....	4
Measured Drawings .....	5
III. History of the Railroad in the Nississippi Delta .....	6
A. Role of the Section Crew in the Industry .....	6
B. Railroad Development in the Yazoo Delta .....	8
C. The Illinois Central Railroad Takes Control .....	12
D. The Economic Impact of the Railroad in Mississippi .....	15
E. Life on A Section Crew .....	20
F. The Twentieth Century Decline of the Railroad .....	46
G. Disposition of the Section Houses at Floweree .....	49
IV. Summary and Conclusions .....	50
V. Bibliography .....	55
VI. Appendix : Measured Drawings of the Mahannah Farms Section Houses .....	60

## List of Figures

Figure	Page
1. Location of Mahannah Farms Railroad Section Houses in Warren County, Mississippi. Adapted from Ensor and Wilson, 1993 .....	2
2. Mahannah Farms Section Houses, Site Plan .....	9
3. 1941 Map of the Illinois Central Railroad Southern Lines from Memphis, Tennessee to New Orleans, Louisiana .....	16
4. View of Early 20th century Motorized Section Car .....	22
5. 1950 Illinois Central Railroad Right-of-Way and Track Map .....	25
6. View of the Mahannah Farms Section Houses at Floweree, Mississippi, View to Southwest ....	26
7. View of the Foreman's Residence, Floweree, Mississippi, East Elevation .....	28
8. View of the Foreman's Residence, Floweree, Mississippi, North Elevation .....	29
9. View of the Central Section House, Floweree, Mississippi, East Elevation .....	30
10. View of the Central Section House, Floweree, Mississippi, South Elevation .....	31
11. View of the Northern Section House, Floweree, Mississippi, East Elevation .....	32
12. View of the Northern Section House, Floweree, Mississippi, North Elevation .....	33
13. View of Typical Section House Fireplace, Note Steel Rail for Lintel .....	34
14. View of Section Foreman's Residence (West Elevation), Note Elevation above Floodplain ....	36
15. View of Pile/beam Construction Technique, the Foreman's Residence, Floweree, Mississippi..	37
16. View of Double-hung Window in the Central Section House, Floweree, Mississippi .....	38
17. View of Typical Central-wall Fireplace .....	39
18. View of Chimney under the Section Foreman's Structure, Note Indentation .....	40

## List of Tables

Table	Page
1. Class I Railroads, Employment Changes by Functional Group .....	48

## Introduction

In April, 1994, the Mahannah Farms railroad section houses at Floweree, Mississippi were examined for their architectural and historical significance and recorded using HABS/HAER photographic and measured drawing procedures. This work was completed in accordance with the National Historic Preservation Act of 1966, as well as the act's implementing procedures as set forth in 36CFR800 (Protection of Historic Properties). During the completion of the study, the three section houses were subjected to Section 106 mitigation via architectural and historical documentation utilizing HABS/HAER standards and procedures. The following report represents the procedures used to complete the documentation as well as the results of this study.

The project area is located north of Vicksburg, Mississippi in the Yazoo Basin of the Lower Mississippi Alluvial Valley. The section houses were identified during an historic resources survey of portions of the Tennessee-Tombigbee waterway wildlife mitigation project under contract to the U.S. Army Corps of Engineers in 1993 (Figure 1) and reported in Ensor and Wilson (1993).

Soils of the Mahannah Farms area are primarily composed of clays which are poorly drained. Along with soil drainage characteristics, the location of the section houses within the Yazoo River floodplain is believed to have contributed to the construction of these structures on elevations well above ground surface. Such elevated settings allowed for protection from the normal high waters associated with flooding in the region.

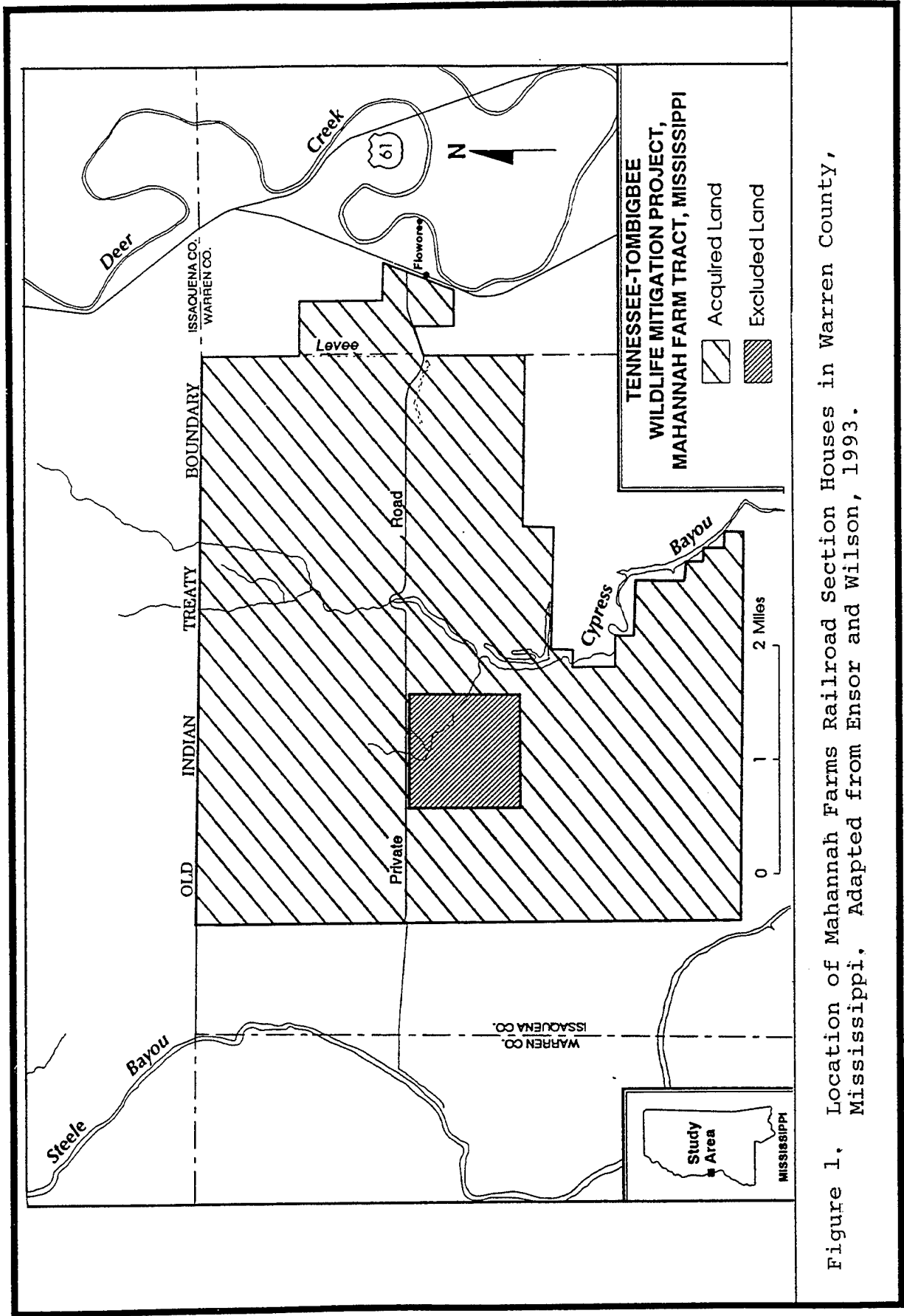


Figure 1. Location of Mahannah Farms Railroad Section Houses in Warren County, Mississippi. Adapted from Ensor and Wilson, 1993.

## **Survey Field Methods**

### **Historical and Archival Research**

Numerous archival sources were used to assemble the information for the historical background and history of the Floweree section houses. During a four week period between April 15, 1994 and May 15, 1994, the following archives were visited regarding information on the history and economic importance of the railroad industry in the Mississippi/Yazoo Delta region. These archives included:

The Mississippi Department of Archives and History, Jackson  
The Mississippi State Library, Jackson  
The Mississippi Historical Society, Jackson  
Florida State University Strozier Library, Tallahassee, Florida  
The Florida Division of Historical Resources, Tallahassee  
Warren County Courthouse, Vicksburg, Mississippi

In addition to archival visits, personal or telephone interviews were conducted with persons or entities which were felt to have knowledge about railroad section houses and the people who would have used these facilities, as well as the history of the development of the railroad industry in the Lower Mississippi Delta. These included the following:

The C. B. (Buddy) Newman Collection, Valley Park, Mississippi  
The Illinois Central Railroad Archives, Chicago, Illinois  
Mr. John Hebron Moore, Mississippi Historian, Tallahassee  
Dr. Elbert Hilliard, Mississippi State Historic Preservation Officer

Of special mention is the assistance provided by Mr. C. B. (Buddy) Newman, of Valley Park, Mississippi. Newman's father was a railroad section foreman at Valley Park and Newman was born in a section house at that location. The Valley Park section house is the first section house north (approximately 10 miles) from Floweree. Newman's personal interest in the railroad industry has led to the creation of a small railroad museum, complete with two restored rail cars, one a crew

car and the other a caboose which contains maps, photographs, and various railroad artifacts from the late nineteenth and early twentieth centuries. Newman's collection of maps, letters, journals, and other documents were very beneficial in the completion of the present study.

### **Photographic Documentation**

In order to complete the HABS/HAER documentation process, standard photographic recording was completed by Ms. Judy Davis, a professional photographer who has considerable experience in historic architectural photography. Section house photographic documentation was completed during field operations between April 27, 1994 and May 1, 1994. Additional 35mm photographs using black and white (Plus X, 125 ASA) and color slides (Ektachrome 200 ASA) were completed by the project Principal Investigator for use in general site mapping as well as support information for the completion structure and site drawings.

All large format photographs (4x5 inch) were taken to HABS/HAER standards using a Cambo 4x5 view camera mounted with a bag bellows and a Schneider Super Anglon 90mm lens. Most planar and oblique views were exposed with and without a metric scale in the form of an engineers stadia rod. Whenever possible, photographs were exposed in order to capture the sought image at a 90 degree angle from the camera's lens. Each of the three section houses was photographed from exterior and interior settings which included an exterior view of the north, south, east, and west elevations as well as pertinent interior and exterior detail photographs. The latter included structural elements such as exterior chimney base, floor joists, support posts, as well as interior doors, windows, staircases, fireplaces, etc.

All photographs were exposed on Agfa rosin coated paper and archivally processed. All negatives and a single proof sheet from each roll of film were assembled for submittal to the U.S.



Army Corps of Engineers, Mobile District. Negatives and glossy proof sheets were stored in plastic protectors and placed in 9 by 12 inch or 6 by 9 inch archival quality envelopes. Information recorded in pencil on each envelope included: 1) project name, 2) location information, 3) view or subject, 4) date of exposure, and 5) name of photographer.

### **Measured Drawings**

In general terms, the preparation of measured drawing of the Mahannah Farms railroad section houses was completed to HABS/HAER specifications. In the field, data were gathered using standard recording techniques with final computer data entry in mind. These drawings were accomplished using sonic measuring tapes, standard hand-held measuring tapes, a Topcon DT-30 engineers transit and a metric stadia rod, as well as other tools recommended for HABS surveys. During field recording, floor plans were initially sketched for use as templates for dimensioning each section house as well as for keying in elements of each building. Critical or important elements of each structure were separately scheduled (along with room finishes), and cross referenced to additional details which illustrated architectural characteristics inherent in any given element type. Wall sections illustrating critical heights, slopes, and material assemblies were also documented and used as references when developing the exterior elevations of the Floweree section houses.

# **History of the Railroad Industry in Mississippi**

## **Role of the Section Crew in the Industry**

Few industries are as complex as the business of running a railroad. The industry requires efficient organization of material, people, and operations. Building and operating a railroad entails, among other factors, accumulation of extensive capital, acquisition of land dispersed over a wide geographic area, recruitment and organization of a large labor force, construction across vast distances of complex and extensive facilities, development of markets, and maintenance of the system. All of that activity occurs within a highly competitive and often politically charged atmosphere. It is interesting to note that many of the great geniuses of American business attached themselves to the railroad industry, which by its nature and complexity presented not only a great challenge, but also risk and reward.

As the railroad industry matured during the nineteenth century, essentially two organizational structures emerged. The substantive differences which existed between the two systems depended upon the size and geographic reach of the company (Wyckoff 1976:36). During day-to-day operations, all large railroad companies subordinated management decisions to regional supervisors. In each of the two management systems, "maintenance of way" played a critical role in the success of a given rail system's operation. Once the rails were set and the line began operating, the facilities had to be maintained to insure continued operation of the rolling stock, the heart of the business. Railroads that attempted to restrain costs by cutting back maintenance of way paid a costly price in the long run. There was no escape from the fundamental responsibility of closely monitoring and maintaining the grade and railroad track. Deferring the cost only meant expenditure of larger sums in the end (Wyckoff 1976:37-38).

In railroad facility management and operation, the "section crew" emerged during the nineteenth century as the organizational device for maintaining the grade and track over which the trains operated. The term section referred to the geographic division marking a particular length of rail line. The routes of the various rail lines that crossed the country were organized into sections for a variety of purposes, which may have included identifying the location of passenger stations, mail pickup posts, fuel and water depots, and repair crews. A section crew exercised responsibility for the geographic part of the rail line to which it was assigned and it took up its work once the track had been laid. The crew inspected the track, tightened joints, maintained switches and lamps, replenished supplies of water and coal, repaired damages, and alerted superiors to potential or real hazards or difficulties (Wyckoff 1976:42).

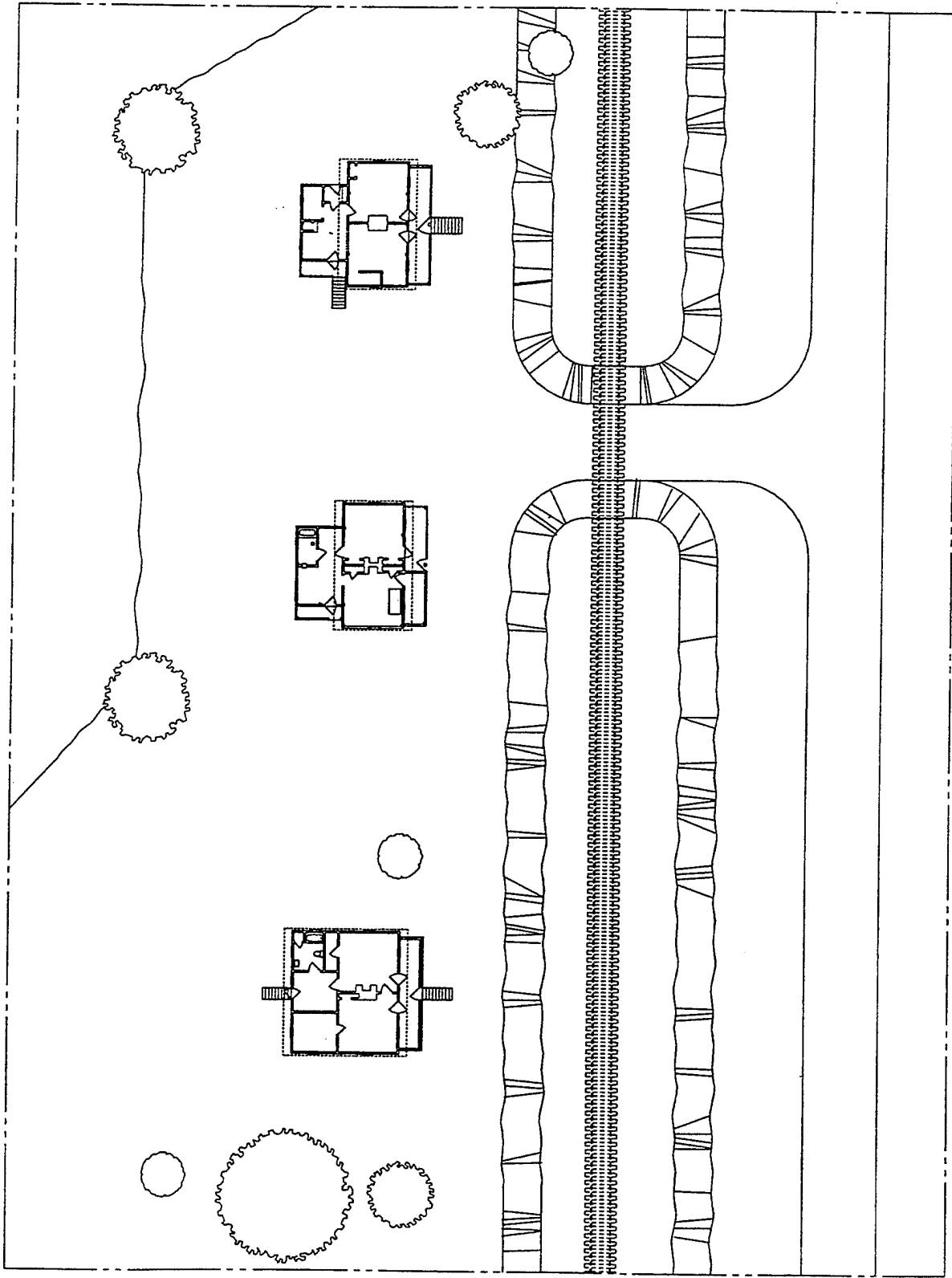
The section crew method of maintaining the rail system was set in place well before the end of the nineteenth century. Railroads, having acquired more than a half century of experience dealing with radically different operating policies, had universally adopted frequent inspection of facilities as a significant part of their management system (Wyckoff 1976:81). Across America, the section crew fulfilled a critical role in keeping the trains operational.

Each of the two organizational systems for managing railroad companies that emerged before 1900 contained a "roadmaster" under whom the personnel assigned to maintain the track worked. The roadmaster reported to a division engineer, who in turn reported to a chief engineer or to a division superintendent, depending upon which form of administration the railroad employed (Morris 1920:80). The lines which railroad magnate E. L. Harriman controlled, which included the Yazoo and Mississippi Valley Railroad (a part of the Illinois Central Railroad system), were organized on a divisional basis (Morris 1920:103). The foremen reported to a roadmaster, who was

supervised by a division superintendent. A roadmaster on the Yazoo & Mississippi Valley Railroad exercised authority over a varying number of sections. C.A. Moreno, roadmaster in the Vicksburg Division of the line in 1894, managed 218 miles of track and 300 branch lines, supervising over forty sections (History of the Illinois Central Railroad 1900:441). In 1916, the roadmaster of the Cleveland District, which then included the Floweree section, was stationed at Greenville (Illinois Central Railroad Official List 1916:55). The facilities at Floweree, which sheltered the foreman as well as a section crew of four laborers and their families, contained three section houses and sheds for equipment and was constructed north of Vicksburg on the east bank of the Yazoo River (Figure 2). It was the first section north of Vicksburg along the line. The next section location came at Valley Park, eleven miles north of Floweree.

### **Railroad Development in the Yazoo Delta**

Conventional wisdom holds that a relative lack of industry constituted the basic reason for the slow development of railroads in the southern states, the state of Mississippi was no exception. It is true that as late as 1890, manufactured goods in Mississippi were valued at only one-fourth of agricultural products (McLemore 1976(I):601). Geography also played a significant part in the slow development of the region. The abundance of rivers in the region discouraged development of rail lines, posing costly impediments to their construction (Fishlow 1965:84). The rivers, moreover, created opportunity for steamboat traffic, the principal competition which the railroad faced in the nineteenth century. For years, planters and farmers, the chief producers in the South, relied on the waterways to ship their products to external markets. This reliance had major disadvantages, however, as inland planters disliked the inconvenience and cost of hauling bales of cotton to river ports over primitive roads. Freightage more than ten



SITE PLAN Figure 2.  
Mahannah Farms Section Houses.

NAME AND LOCATION OF STRUCTURE  
**RAILROAD SECTION HOUSES**  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET OF SHEETS

miles by oxen proved highly uneconomical. Accordingly, plantations tended to hug the waterways, leaving interior portions of the Old South undeveloped (Moore: 1979:53-54). That especially held true in the Yazoo Delta, an area in northwest Mississippi at the confluence of the Mississippi and Yazoo rivers. In 1865, fully ninety percent of the land contained within that region remained undeveloped wilderness (Brandfon 1967:40).

The Yazoo-Mississippi Delta lies in the center of a vast alluvial plane formed by the gentle slope of the Mississippi River as it flows southward from the Ohio River to the Gulf of Mexico. High bluffs extend southward from Memphis, Tennessee to Greenwood, Mississippi and follow the Yazoo River to its junction with the Mississippi River at Vicksburg. This geographic feature forms the eastern boundary of the Delta. The diamond-shaped basin, enclosed on the west by the Mississippi River, contains 7,065 square miles or 4,520,000 acres of rich soils, nourished from time to time by sedimentary deposits from the overflowing rivers (Brandfon 1967:25-26).

At the end of the Civil War, the few railroads that existed in Mississippi (none of them completed or connected to interstate routes) lay in physical and financial ruin. Railroad interests in the North and Midwest viewed Mississippi chiefly as a geographic obstacle that had to be overcome in order to reach ports on the Gulf of Mexico. While railroads offered the most logical method of transportation for developing the timber and agricultural potential of the inland Delta region, these facilities remained absent in the Delta region until economic necessity invited railroad construction. (McLemore 1976(II):305-306).

The resumption after the war of levee construction along the Mississippi River, this time under federal auspices, opened up large areas of swampland in the Delta to timber companies. Once the timber was harvested, the land became available for agricultural exploitation.

Speculators, attracted by changes made to the state's taxing structure that was designed to encourage agricultural exploitation of vacant lands (Brandfon 1967:50), began drumming up interest among immigrant farmers, creating an agricultural bonanza (Owens 1990:147). A combining of interests among timber companies, farmers, planters, and railroad companies materialized.

Still, by the late 1870s, only two narrow gauge single track rail lines were in operation in the Delta. Each of these was financed by local planters. One of these was 31 miles long, while the other was 39 miles in length. These rails served internal interests alone, possessing no link to a system outside the Delta. A few minor lines extended out a short distance from Vicksburg. Into this vacuum stepped one of America's most famous entrepreneurs, Collis P. Huntington, whose feats of railroad building began in California with construction of the Southern Pacific Line and extended to the Midwest and eastern states, where he constructed the Chesapeake & Ohio system and built the port of Newport News, Virginia. In the early 1880s, Huntington and his partners were putting together the links of a trunk line that would span the continent, purchasing minor railroads to complete the chain.

A major gap appeared between Memphis and New Orleans, across the alluvial lands of the Mississippi and Yazoo Delta. In the summer of 1881 a syndicate headed by Huntington, bidding through a local corporation calling itself the Memphis and Vicksburg Railroad (owning not a mile of track), purchased 774,000 acres of land in the Yazoo Delta (Brandfon 1967:51). Construction of a line from Memphis to Vicksburg, consolidated in 1884 under the name of the Louisville, New Orleans & Texas Railroad, began in 1882. The first train rolled over the tracks and into New Orleans in October 1884. It was a heroic feat of railroad building. One the principals recalled some years later:

The nature of that section of country, particularly between Vicksburg and Memphis, presented obstacles the like of which I have never seen...it was a most hazardous undertaking, and no one would have undertaken it if they had known what they had to contend with beforehand.... The country from Vicksburg north, except little strips of land along the streams, was almost a wilderness in 1882. It was subject to frequent overflows from the Mississippi River. I think the land was covered almost from Lakeview, where the state line crosses, to Vicksburg. The whole of that country was overflowed in 1882 before we came there. It was overflowed in 1883 and 1884 and then again almost every year there were overflows or breaks in the levees at some point between Leland and Clarksdale....Over many miles it seemed as if the foot of man had never trod. It was nothing in the world but a canebreak and a wilderness. The country north of Vicksburg from the Yazoo Bridge way up to Rolling Fork was almost of the same character (Corliss 1950:238-239).

Construction of the Yazoo Bridge, a few miles above Vicksburg, presented particular difficulty. The bridge, 900 feet in length, was completed under the supervision of General William Sooy Smith, a noted engineer who in 1879 had built the first all steel bridge in America. In addition to enduring excessive summer heat and constant flooding, the engineers encountered great trouble finding stable bedrock to support the substructure. Originally estimated to cost \$80,000, the bridge required an expenditure of \$278,000 before it was completed. The finished line crossed nearly virgin, heavily wooded territory. Only a few acres of cleared land lay between Memphis and Vicksburg (Corliss 1950:239). But finally a railroad crossed the Delta, offering timber companies a means to transport logs extracted from the vast forests that covered the landscape.

### **The Illinois Central Railroad Takes Control**

Huntington's success in linking his rail systems in the East and Midwest to the port of New Orleans offered an immediate and critical challenge to the dominant line in middle America, the Illinois Central Railroad. Until that time, the Illinois Central ran the only rail service into New Orleans. Its line stretched southward from Cairo, Illinois, passing through the central Mississippi cities of Grenada and Jackson before reaching the port city. For years, leading back nearly a half



century to the origins of the line, directors of the Illinois Central had aspired to control rail service to New Orleans and to establish a dominating rail transportation network in the Mississippi Valley. In 1877 the Illinois Central secured its route by pressing two creditors, the Mississippi Central and New Orleans, and the Jackson and Great Northern, into receivership and purchasing their assets (Stover 1955:186-187). This provided the necessary links to a track from Cairo to New Orleans. The company's southern traffic immediately jumped sixfold. Competition from Huntington's railroad accordingly threatened the plans and revenues of the Illinois Central (Brandfon 1967:78-79).

The origins of the line date to the 1830s, an early time in the history of America's railroads. Not long after the industry began to develop in America, Illinois Senator Stephen Douglas took up the cause of building a railroad that might serve the Midwest. After years of legislative maneuvering, he succeeded in passing a bill through the U.S. Congress authorizing the states of Illinois, Alabama, and Mississippi to raise funds from the sale of public lands to support rail development. Illinois granted 2,594,115 acres to the Illinois Central, which received its charter in 1851 and immediately began construction of 700 miles of track (History of the Illinois Central Railroad 1900:12-27).

The company achieved only moderate success in its first decade of operation, coming close to bankruptcy in the Panic of 1857. The company escaped an attempt by county governments within Illinois to impose heavy taxes on its right-of-way only through the legal sagacity of one of its principal contracting attorneys, Abraham Lincoln. Lincoln's argument in a critical case (Illinois Central Railroad vs. the County of McLean and George Parke, Sheriff and Collector) stifled a serious constitutional threat to the financial stability of the company (Corliss 1951:104-123).

In the years immediately preceding the Civil War, Illinois Central trains became a favored part of the "underground railroad." Escaped slaves crossed the river at Cairo, then stole aboard Illinois Central freight cars, which carried them to secure refuge in northern parts of Illinois (History of the Illinois Central Railroad 1900:31).

The Civil War gave the company a measure of financial stability. Although forced to operate on marginal government contracts, its trains were kept thoroughly occupied, transporting over 600,000 troops and countless tons of freight during the five years of war (Corliss 1951:137-138). The reunification of the country in 1865 presented the Illinois Central with an opportunity to realize the dreams of its founders, establishing a railroad company with tentacles reaching out into the Midwest, the deep South, and gulf ports. Within the next quarter century, it expanded from a 700-mile in state railroad company to one serving ten states and operating along 3,700 miles of track (Corliss 1951:141).

Confronted by the impending threat from Huntington, the Illinois Central, in 1882, consolidated its trackage through central Mississippi, securing a 400-year lease on its line, which the company renamed the Chicago, St. Louis & New Orleans Railroad. It then incorporated a new firm, which it named the Yazoo & Mississippi Valley Railroad Company, and began construction of a line from Jackson to Yazoo City. This gave the Illinois Central access to the Delta cotton trade, enabling it to ship the bales to New Orleans through Jackson. The feeder line was completed in 1884, about the time that Huntington finished his road from Memphis to New Orleans. At this point the Illinois Central ran into good fortune. Huntington had exceeded his financial grasp. Although the Louisville, New Orleans & Texas Railroad held great promise, permitting access to

New Orleans and even to the Pacific, it did not generate sufficient revenue from the yet largely undeveloped Delta to retire its debt.

When it became apparent in early 1891 that the road was teetering on the edge of bankruptcy, the directors of the Illinois Central entered into negotiations to purchase the route. On October 24, 1892, the sale of the Huntington line to the Illinois Central was consummated. The Illinois Central acquired 807 miles of track, vast acreage in the Delta, shop facilities at Memphis, Vicksburg, and New Orleans, 101 locomotives, 65 passenger train cars, and 2,735 freight cars. The property was consolidated under the name of the Yazoo & Mississippi Valley Railroad. The Illinois Central now held primacy throughout the Mississippi Valley and, to be sure, the State of Mississippi (Corliss 1951:240-243). Figure 3 reveals the southern lines of the Illinois Central in 1941).

### **The Economic Impact of the Railroad in Mississippi**

By 1890, the railroad had emerged as Mississippi's leading industry, with 2,333 miles of track and 4,000 employees (McLemore 1973(I):602). With its purchase of the L.N.O. & T., the Illinois Central became the state's largest corporation. During this time, however, the company's operations were confined to the central portion of Mississippi along its original main line. Throughout the next decade the Illinois Central moved to extend and strengthen its monopoly over the Yazoo Delta. There, despite the economic depression which afflicted the nation and state in the early 1890s, the company managed to raise its revenues by 51 percent between 1892 and 1898 (Brandfon 1967:80). This feat was accomplished by engaging in a variety of measures to promote agricultural and lumber production and to encourage settlement.

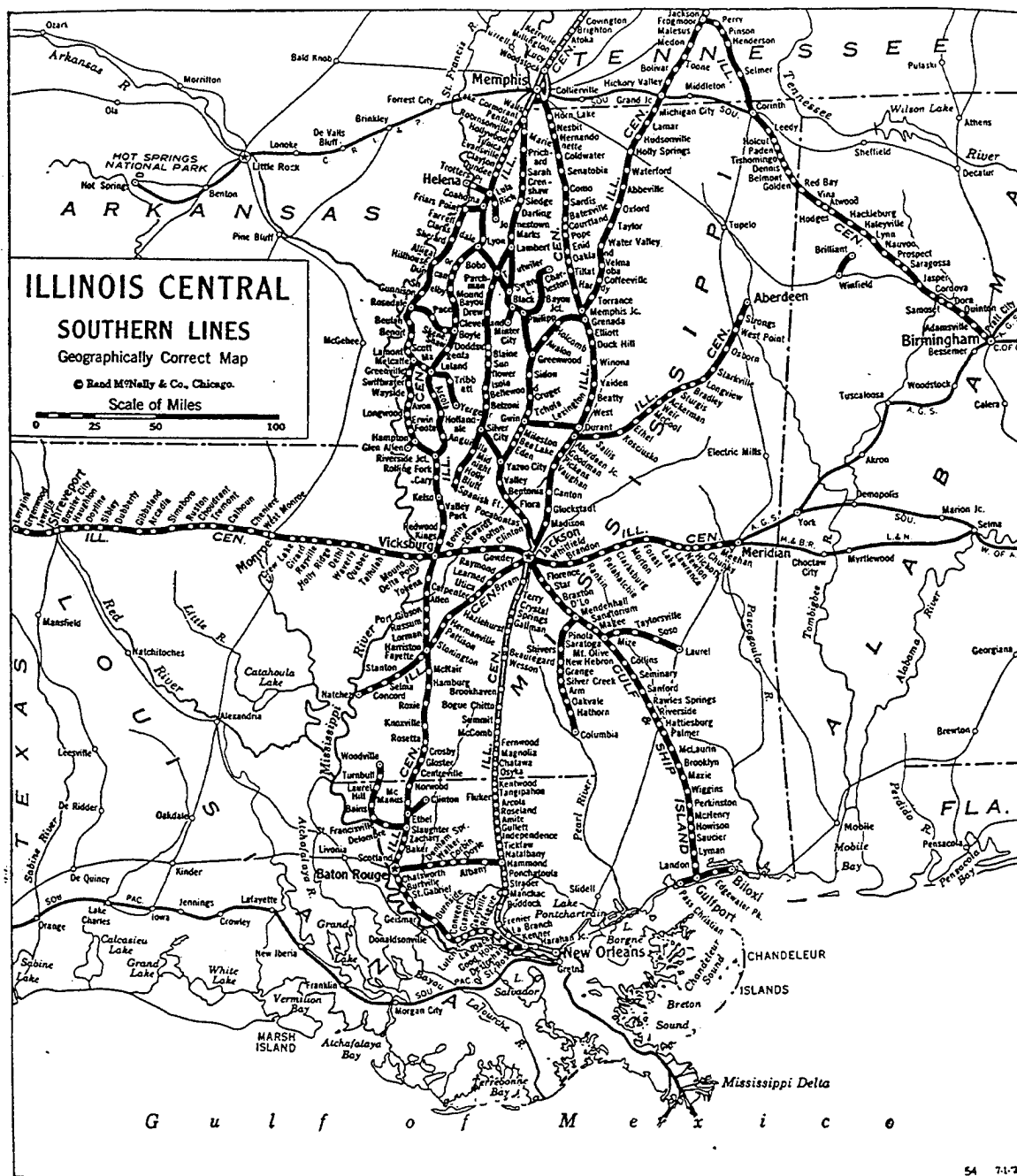


Figure 3. 1941 Map of the Illinois Central Railroad Southern Lines.

Before the 1880s, forest-based industries formed only a small part of Mississippi's economy. Not until the railroads opened up the possibilities for exploitation of the vast timber reserves in the interior parts of the state did lumbering become a major economic activity in the state. The railroads alone were not responsible for the expansion of lumbering that occurred in Mississippi from 1890 through the 1930s, however. Events elsewhere conspired to help it along. The white pine forests of northern states which had for generations before fed the nation's appetite for wood grew thinner each year. The naval stores industry, once centered in the Carolinas, moved southwestward as the forests in eastern seaboard states disappeared. Northern lumbermen and naval stores producers in the Carolinas, amazed to find millions of acres of virgin hardwood standing on the easily accessible rolling hills of Mississippi, gradually transferred their operations there (McLemore 1973(II):213-214).

Lumber production industries expanded. The number of sawmills operating in the state rose from 295 in 1880 to 338 in 1890 and then nearly doubled in the next ten years to number 608. That but served as a prelude to even more staggering growth in the next decade. By 1915 Mississippi ranked as the nation's third largest producer of lumber. Hundreds of large and small sawmills appeared along the rail lines that crossed the longleaf pine belt. The mills adjacent to the Illinois Central lines cut some 250 million board feet of timber in 1901, about one-fifth of the state's total output. Much of the lumber which the mills produced was sold to foreign markets and shipped by rail line to Gulf ports (McLemore 1973(II):214-215). As the forests of Mississippi also began to dwindle, the Illinois Central became involved in reforestation efforts. These efforts began as early as the 1920s and continued past mid-century. The company actually established a Forestry Department of its own in 1945 to promote its reforestation program. It attracted

nationwide attention with fabrication at its McComb, Mississippi shops of a machine capable of planting 1,000 trees an hour. Tens of thousands of acres of cut over land was subsequently placed back into production (Corliss 1950:420).

Much earlier, the Illinois Central had moved to stimulate industrial and agricultural growth by creating a department specifically concerned with economic development. Recognizing the potential profits to be earned from carrying Mississippi agricultural products to northern markets, the company sought to promote production by shippers who might logically employ its transportation services. Top officials of the line, from the president on down, became increasingly concerned after the turn of the century with "bulls, butter, and boll weevils."

In 1906, the company outfitted a six-car train filled with seed and soil exhibits, which it called the "Corn and Seed Special," for use in educating farmers along its lines. First tested in northern states, this "Agricultural College on Wheels," which proved popular and effective, was extended to the company's southern lines. In its southern demonstration program, the company stressed control of boll weevils and the value of diversified farming. Beginning in 1912 the Illinois Central also financed efforts to improve dairy farming and creamery production in Mississippi (Stover 1975:306-307). The company extended a standing offer to provide the services of a butter expert for one year to any cooperating creamery with access to the production of at least 500 cows. More than a score of Mississippi communities agreed to participate in the project (Corliss 1950:416).

The Illinois Central, according to one historian, was actually the first company to perceive the possibilities of vegetable production in Mississippi, and it molded the character of the industry in the state. The company established demonstration farms to exhibit techniques and methods of

production to local farmers, a program in which the railroad company enlisted the cooperation of the Mississippi Department of Agriculture and Mississippi A & M College. The cooperation of local farmers was attracted through contracts in which the producers agreed to cultivate forty acres according to plans developed by state agricultural experts. Illinois Central specialists assisted the farmers in implementing the plan and the company provided them financial protection against potential losses that might result from their participation (McCorkle 1977:155-158).

In various other ways the rail company attempted to promote agricultural sales. One of these was improving the speed of transit between shipping points in Mississippi and the market terminal in Chicago. Another was the development of refrigerated cars to carry produce. The company had experimented as early as 1866 in shipping fruit packed in ice over long distances (Corliss 1950:295-296). In the 1880s and 1890s it gradually developed a refrigerated car service, which it placed on runs between Chicago and New Orleans. The company erected ice houses at various intervals along the line to service the cars (McCorkle 1977:164-165).

It was not enough, however, for the rail company merely to encourage agricultural production. The Illinois Central also promoted immigration of farmers from northern states to take up cultivation of unexploited acreage as well as to import their agricultural talents. In this endeavor the company was treading on familiar ground, for it had initiated such activity as early as the 1850s in Illinois. In fact, populating territory through which rail lines ran with new communities and farmers was hardly a novel enterprise. Rewarded by state legislatures and the federal Congress with lands to help pay for track construction, railroad companies were financially constrained to sell or develop the acreage in one way or another (McCorkle 1977:167). In one scheme, for a price of 60 dollars, the Illinois Central provided a box car to an Illinois farmer

to carry his household goods, farm implements, and livestock (horses and cattle) to Mississippi. His wife and children rode in a passenger car. Upon arrival in Mississippi, the immigrant farm family remained in a local hotel until they could find a home near their acreage (Everett 1976:363). Local interests enthusiastically supported the program (McCorkle 1977:167), which indeed fit the philosophical tendency of Americans to equate "progress", a hallowed though nebulous goal, with population growth.

In such ways and others did the Illinois Central and companion railroads influence and change the lives and fortunes of people in Mississippi. Inevitably they failed in many of their efforts. Many of the smaller lines succumbed to the decline of the lumbering industry when the best located forests became exhausted. Railroads which linked small towns and provided their only means of transportation suffered as the automobile grew in popularity and then disappeared completely when economic depression struck in the 1930s. It took a great line like the Illinois Central, with enormous financial resources at its command to survive, and then only at great sacrifice. But whatever its measure of success or failure in stimulating local freight revenues by encouraging industrial and agricultural production, the company still possessed lines of track that ran through Mississippi from Chicago and other Midwestern cities to the port of New Orleans. Those lines, including the tracks that passed the section houses at Floweree, required continuous maintenance. And so, while the economic fortunes of Mississippi rose and fell, the rail hands along the Illinois Central lines remained at work, allowing the trains to continue rolling.

### **Life on a Section Crew**

In an age when most Americans still traveled long distances by train, there would have been no need to explain who a section man was or what he did. They were often seen standing



beside the track as the train sped by, sweaty, muscular men in work clothes, tools in hand, interrupted in their work by the passage of the cars. People who lived near a track saw them in crews of four or six men, sitting aboard a small open car gliding along the rails toward some location on the road that needed repair (Figure 4). And if the car stopped and the men climbed off of it, children in the vicinity might gather a short distance away to watch as the workers struggled to replace worn or rotted railroad ties, hammer in new spikes to fix a rail, or shovel dirt along the grade. Children envied the joy they thought a ride on that car must bring. And they wondered where the nameless men came from, whether they returned to families at night, what else they might do in life. Section men were familiar figures to rural Americans, but only by sight. One never got to know them, for they stayed only briefly at any place along the track, time only to make needed repairs before moving on.

The division of geographic responsibility along rail lines into sections and assignment of specific crews to each section seemed to have been uniform practice throughout the railroad industry during the Flowerree section house era. In unpopulated regions, the rail company constructed residential and storage facilities for section crews. With the exception of variations in climate and terrain, the experience of a section hand in the eastern or western parts of the continent who inhabited such buildings would have resembled that of one in the South. The recollections of a young European immigrant, hired to work for a summer on a section of the Canadian Pacific Railway, toiling on the western prairie in view of distant blue and snow-capped Rockies, might well have described the existence of such men in any remote part of North America during the last half of the nineteenth century and the first fifty years of the

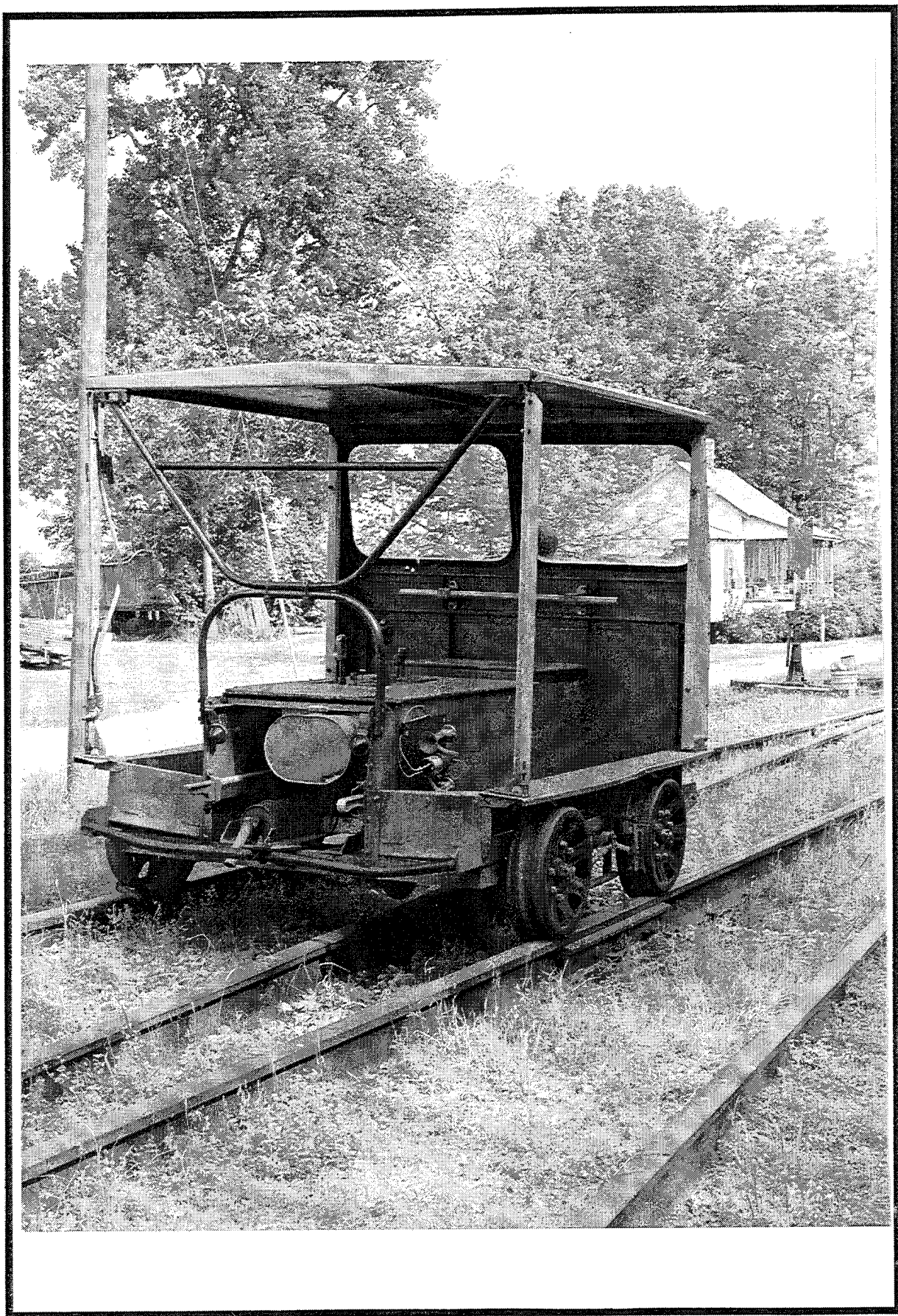


Figure 4. View of Early 20th Century Motorized Section Car.

present. His account of life and work on the section gang appeared in an English literary journal in 1888:

We lived in one of the frame-built houses, all of the same model, which are stationed along the track at intervals of twenty miles or less. In each are lodged two gangs, one keeping the line in repair ten miles east, the other ten miles west. The head of one of them has the additional duty of keeping the section house and boarding the men. Our boarding boss was an Englishman, a frank, straightforward fellow, whose buxom wife, besides her maternal duties, did the cooking for both gangs. Her work, moreover, was often increased by the quartering upon us of the surface gang, a large roving detachment that worked sometimes one section, sometimes on another, as their services might be required.

We would rise at six in the morning, awakened by the stentorian cry, "Come, arouse!" of the boarding boss. Breakfast followed, and at seven...Joe would summon us to our duties with a "Now, (b)oy, all aboard!" This referred to the handcar that we rode to the scene of our labors, which was sometimes close by, sometimes several miles distant....The handcar was nothing more than a flat, open truck on wheels, which raised it about a couple feet above the rails. It could be lifted on and off the track by four men, two at each end, and it afforded comfortable standing room for six....Our work consisted in keeping the track in good level order. We used a jack to raise the sunken rails, shoveling earth beneath the ties to keep them in place....The great drawback to section life, remote from any town, is the dreariness and monotony of its surroundings (Reinhardt 1970:210-217).

Those words might well have been written by a man working on a section crew for the Illinois Central Railroad in Mississippi. The summers in Mississippi were ever so much hotter and the winters, of course, far less frigid. The scenery differed, however, instead of mountains, the section man in Mississippi often looked over an almost flat, alluvial plain filled with grasses and frequent hammocks containing large live oaks. But the work he performed was the same and his living conditions seemingly identical.

The sections along the line from Vicksburg to Memphis were located from ten to fifteen miles apart. Each section location held three residential buildings and a varying number of outbuildings, always small in number. In addition to the privies found behind every house before indoor plumbing materialized, the outbuildings invariably included a tool shed and perhaps one

or more supply sheds. At some sections, a water tank to refill the steam engines of trains might have towered over the rails, which were never far from the building complex. A typical section house lot containing residential structures and outbuildings ran approximately 500 feet along the track and extended some 220 feet distant from it. A space no greater than 150 feet, perhaps less, accordingly separated the front porch of the residential buildings from the track (Figure 5). The close rumble of passing trains, as many as one every hour day and night along that line, was a constant condition of life among the section men and their wives and children.

At Floweree, the section foreman and his family occupied one of the residential buildings. In the other two residential buildings, each divided into two units, lived two section crewmen with their families, one family to a unit (Figure 6). The section hands and the foreman at Floweree exercised the essential responsibility for maintaining approximately 10 miles of the right-of-way, including the track and track bed upon which passenger and freight trains traveled. Changes in the industry and modernization of equipment have in the past forty years resulted in replacement of the detached section crews by floating crews despatched from central locations. Such changes resulted in abandonment of the section facilities and stations along rail lines not only at Floweree, but also throughout other sections of the country. The section houses at Floweree appear to be among the few which remain in any location that, although modified, look somewhat as they did during the era when the railroad played a significant role in America's transportation network and in the lives of its people. The study of the Floweree railroad section houses has added significant information to our knowledge of the history and development of the railroad industry in the Mississippi/Yazoo River delta during the late 19th and early 20th century.

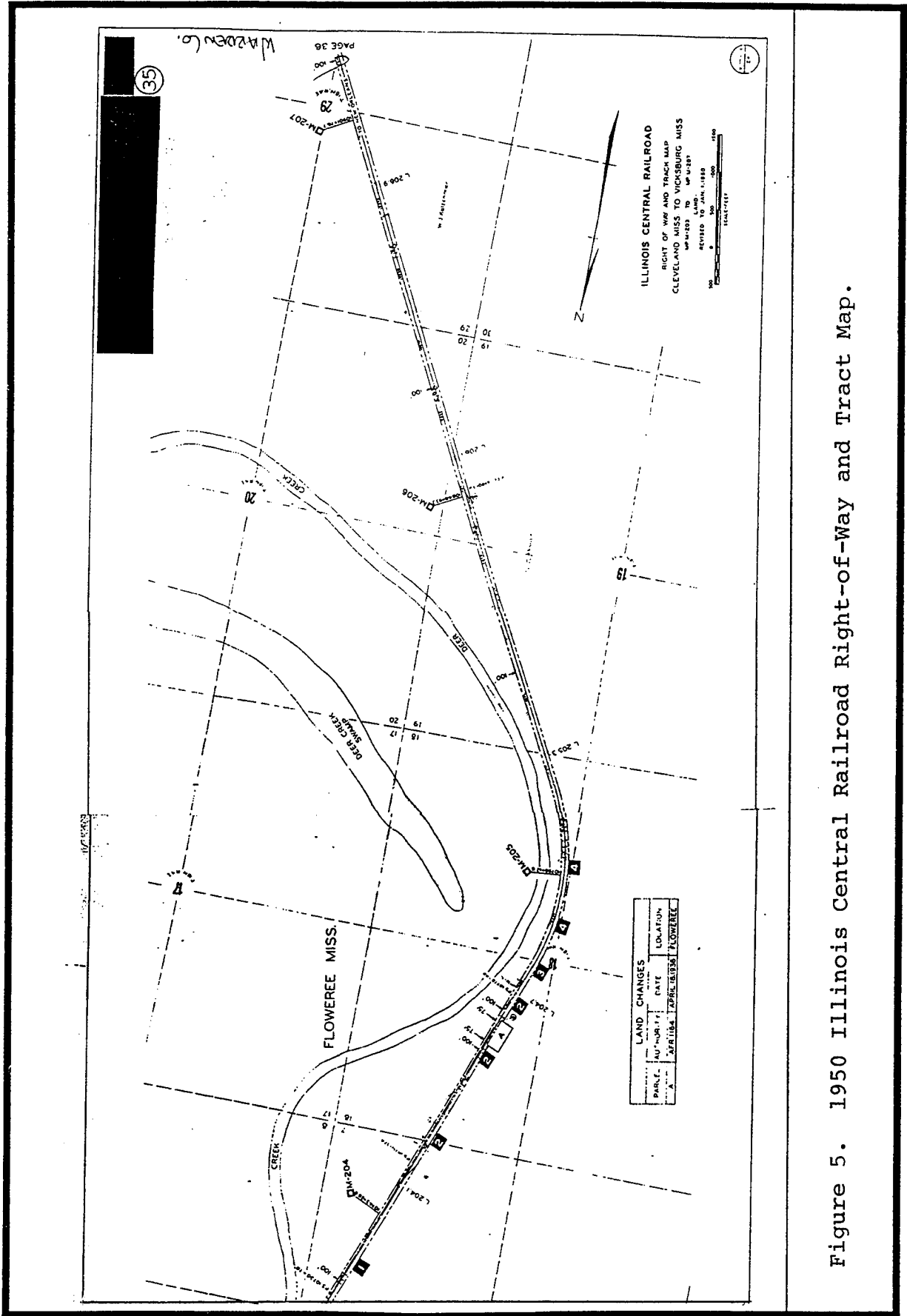


Figure 5. 1950 Illinois Central Railroad Right-of-Way and Tract Map.

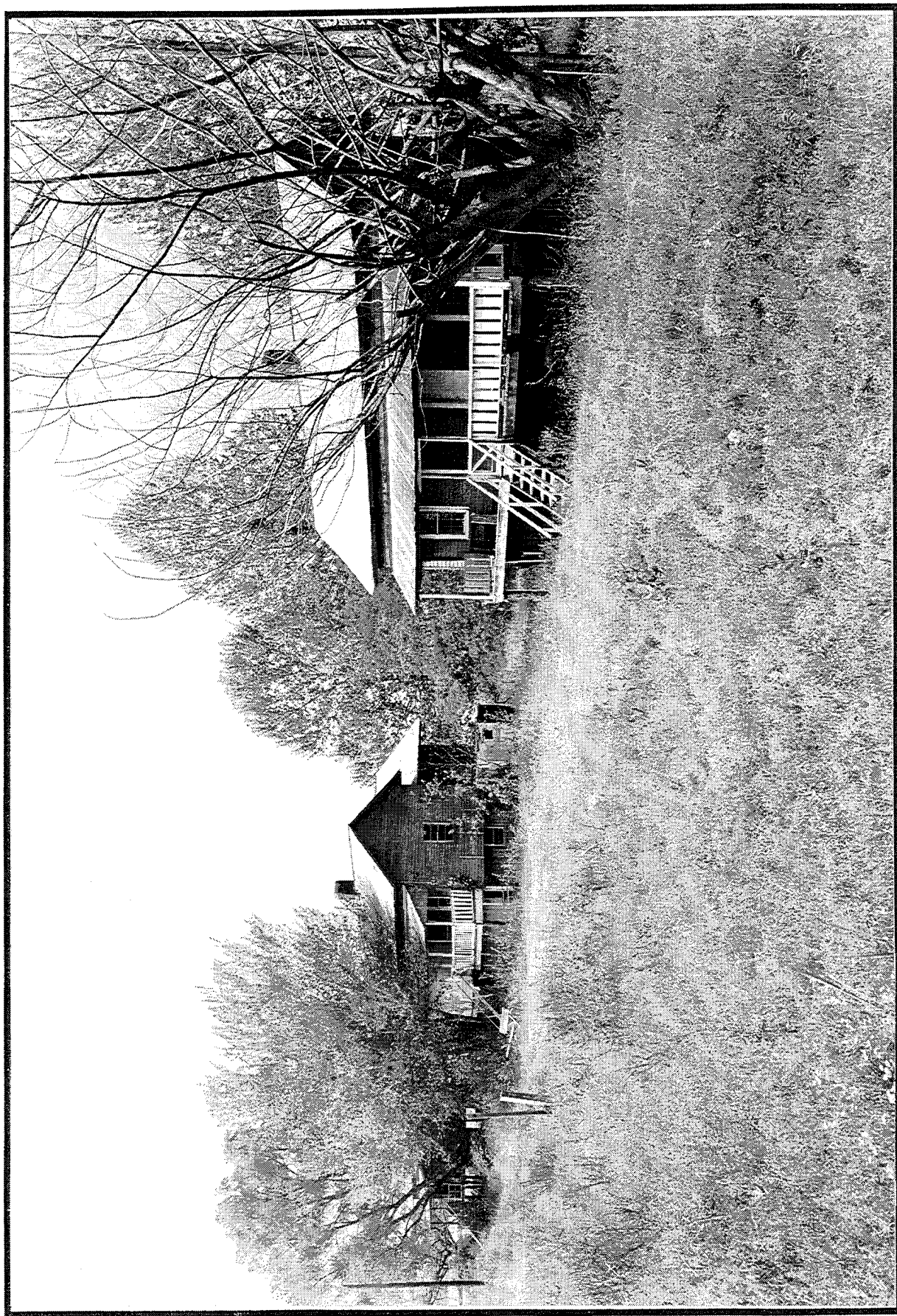


Figure 6. View of the Mahannah Farms Section Houses at Floweree, Mississippi, View to Southwest.



As a result of the current survey, it is believed that the exterior walls of the foreman's structure are original (Figures 7 and 8). It appears, however, that considerable modification of the interior of the foreman's residence as well as the two remaining section hand's structures has taken place sometime following initial construction (Figures 9 and 10). It seems likely that these modifications postdate use of the structures as section houses and probably occurred during the Anderson-Tulley tenure at Mahannah Farms (Figures 11 and 12). The framing technique of post-construction modifications to the section crew structures (i.e. platform versus balloon), the placement of wood pilings on isolated concrete footings in lieu of being sunk in place, and the exterior finish (board and batten versus lapped siding) support this view.

During project analysis, the use of computer graphics to remove what had been determined to be later additions to the structures enabled researchers to suggest that the original structures used to house the section crews consisted of two one room apartments with a central fireplace located within the demising wall. The houses appear to have been built using stock details, a standard structural module with variations on a central theme, with construction techniques and a vocabulary easily applied to remote locations by a construction crew working from a railroad car. An example of the railroad vocabulary is best illustrated in the use of a section of steel rail for the fireplace lintel (Figure 13). The basic house plan or shell was that of the typical crew residence: an elevated structure that was one room deep by two rooms wide with a gabled roof and a front porch. The foreman's residence was constructed in the same basic form with the addition of three rooms at the rear of the house resulting in a structure two rooms deep with two rooms at front and three rooms along the rear. The roof of the foreman's residence consists of

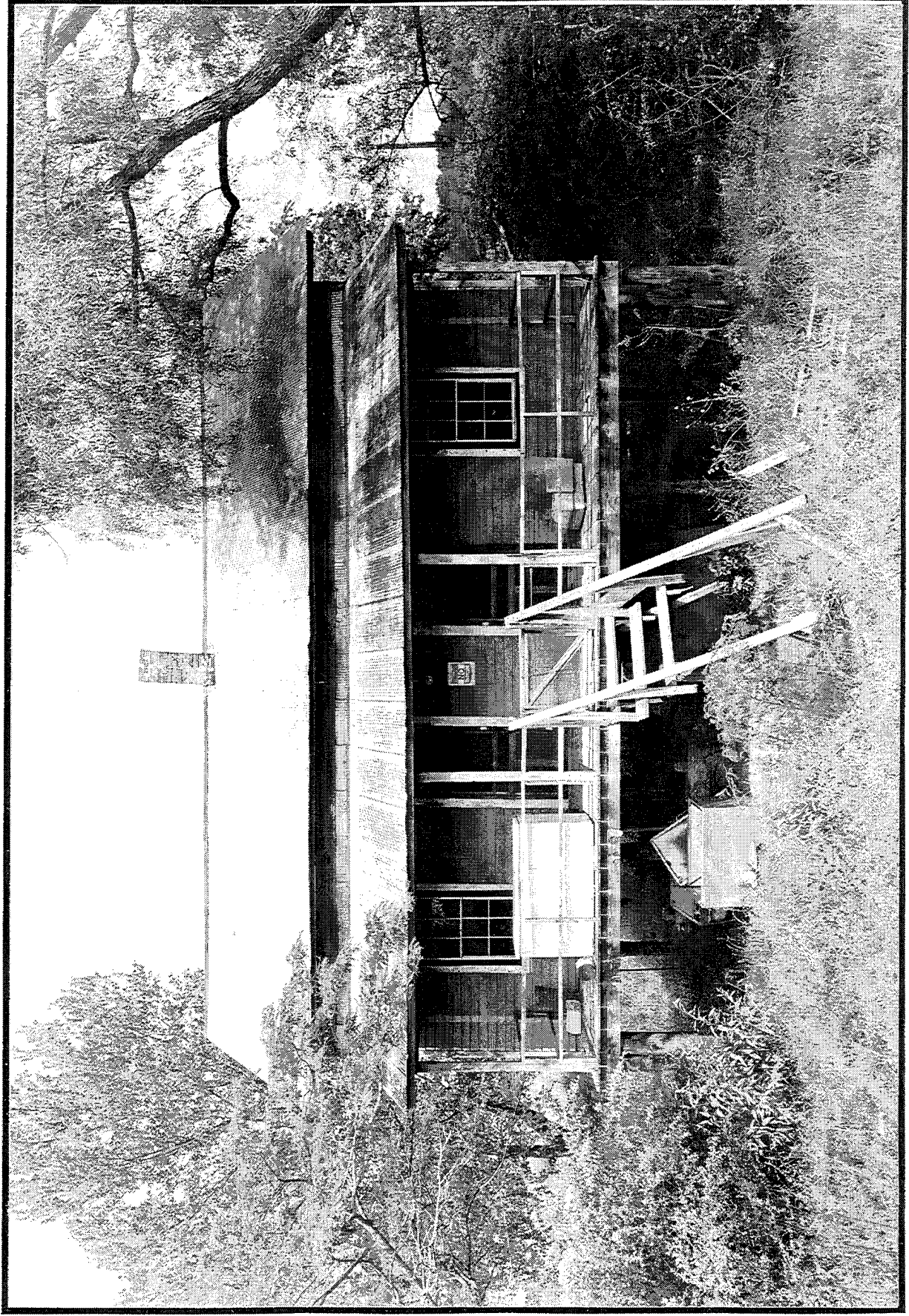


Figure 7. View of the Foreman's Residence, Floweree, Mississippi, East Elevation.



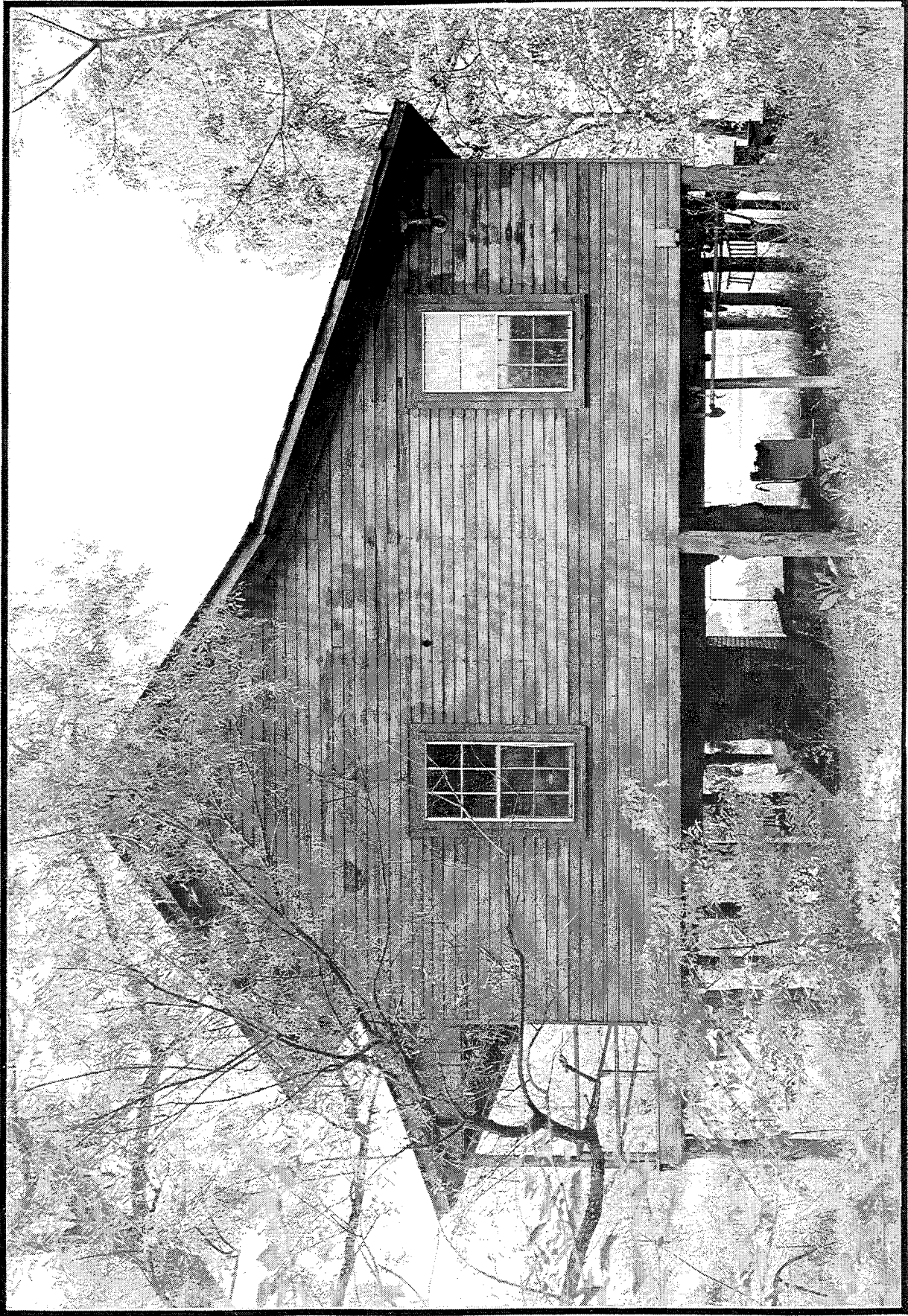


Figure 8. View of the Foreman's Residence, Floweree, Mississippi, North Elevation.

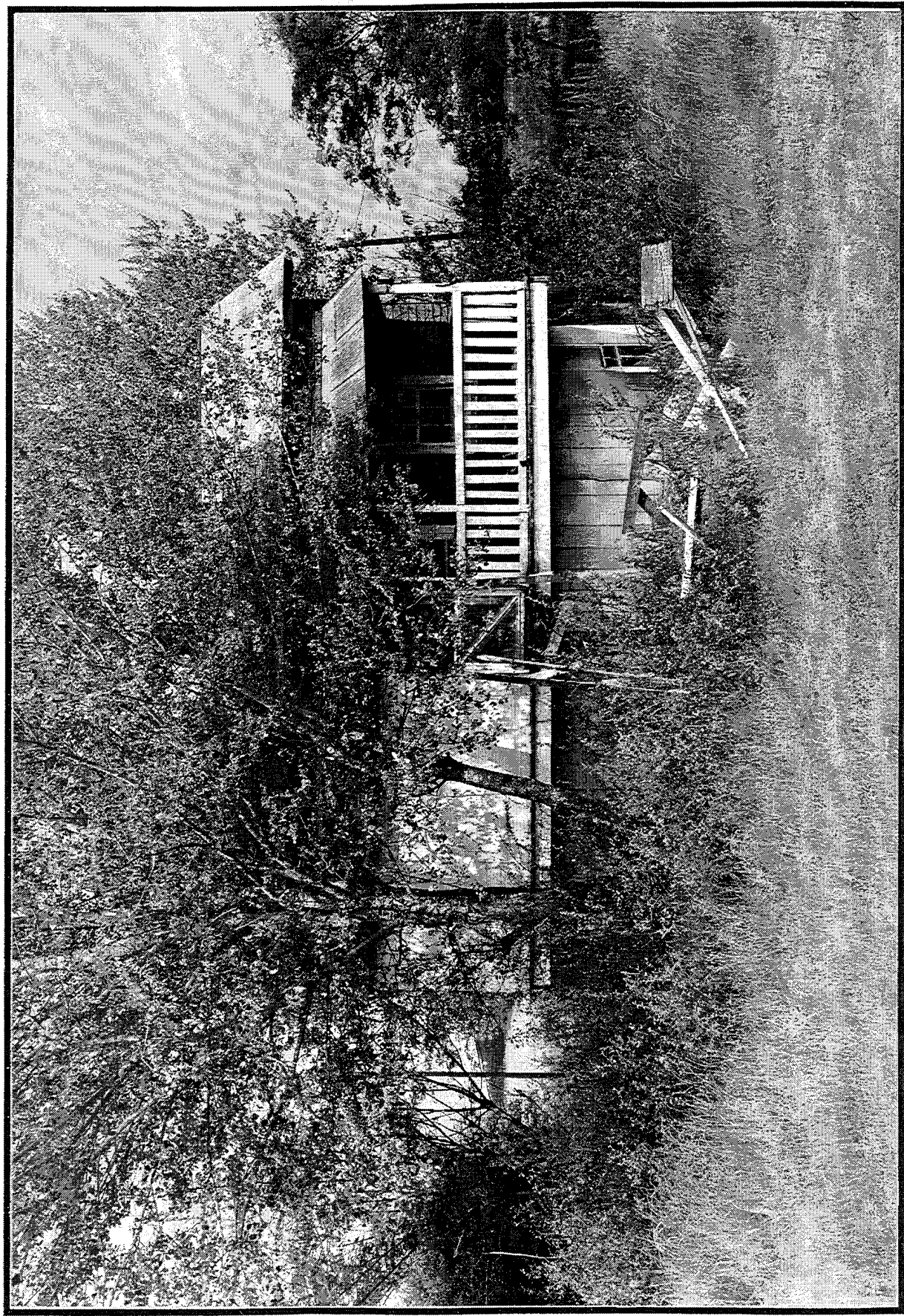


Figure 9. View of the Central Section House, Floweree, Mississippi, East Elevation.



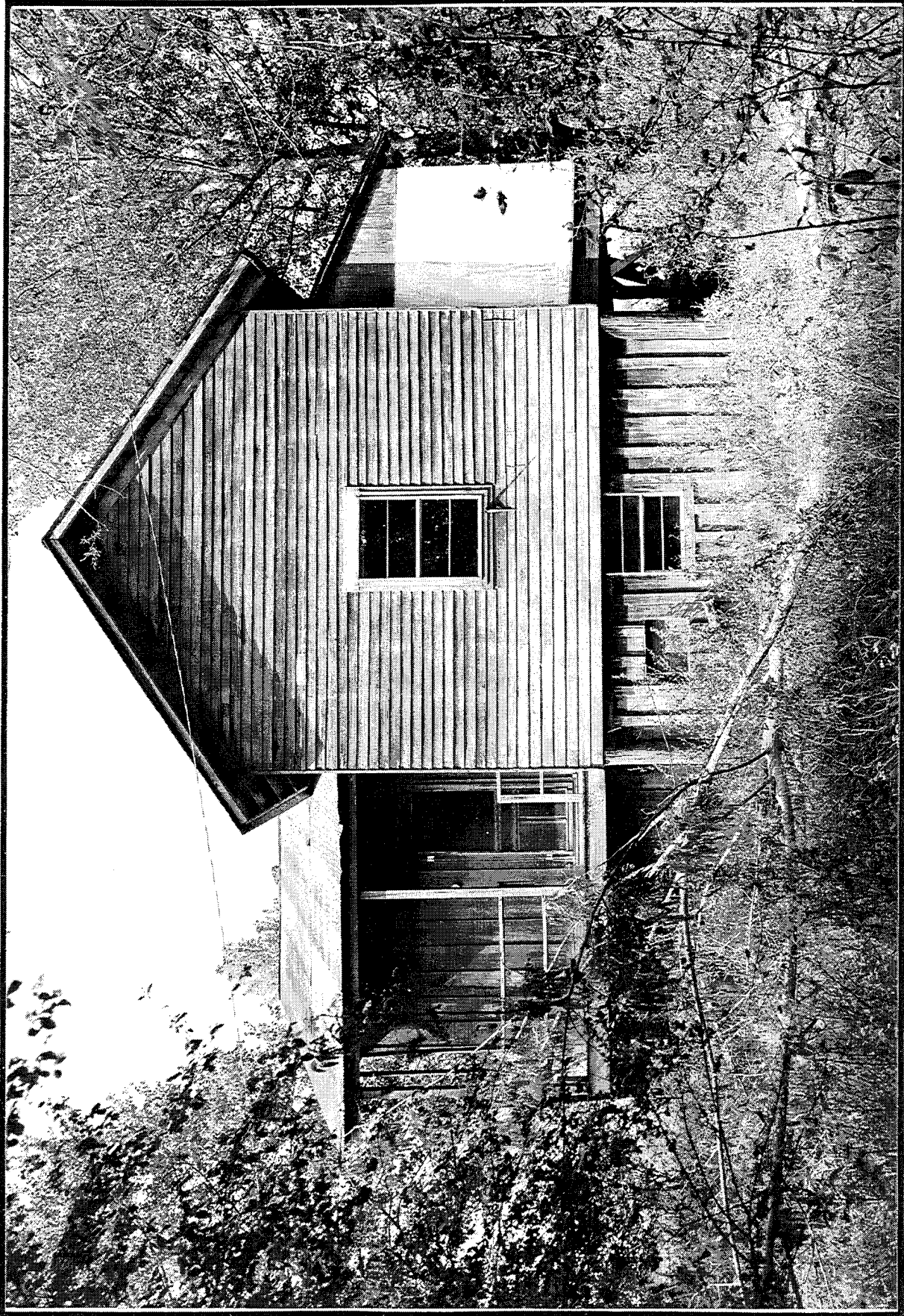


Figure 10. View of the Central Section House, Floweree, Mississippi, South Elevation.

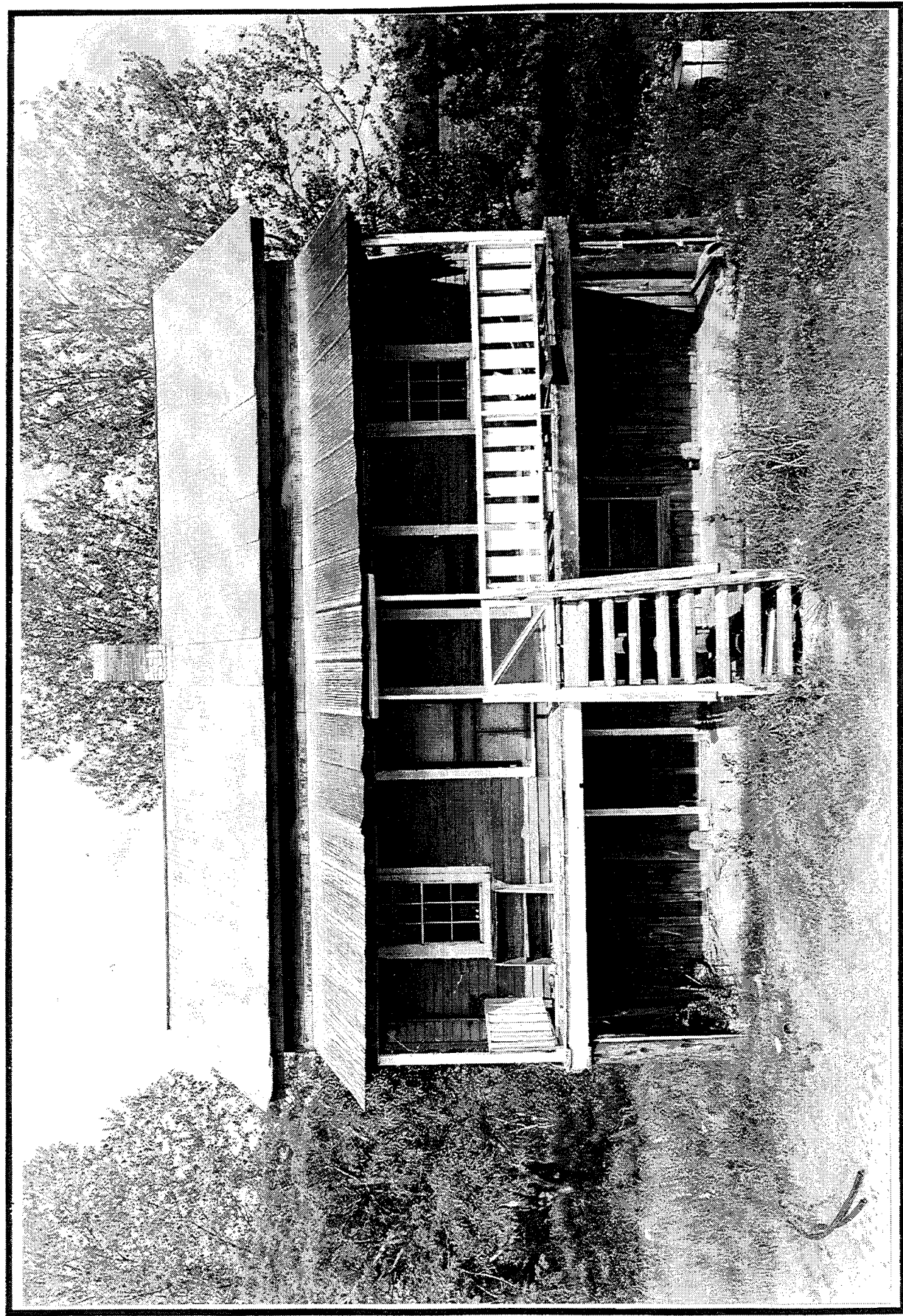


Figure 11. View of the Northern Section House, Floweree, Mississippi, East Elevation.

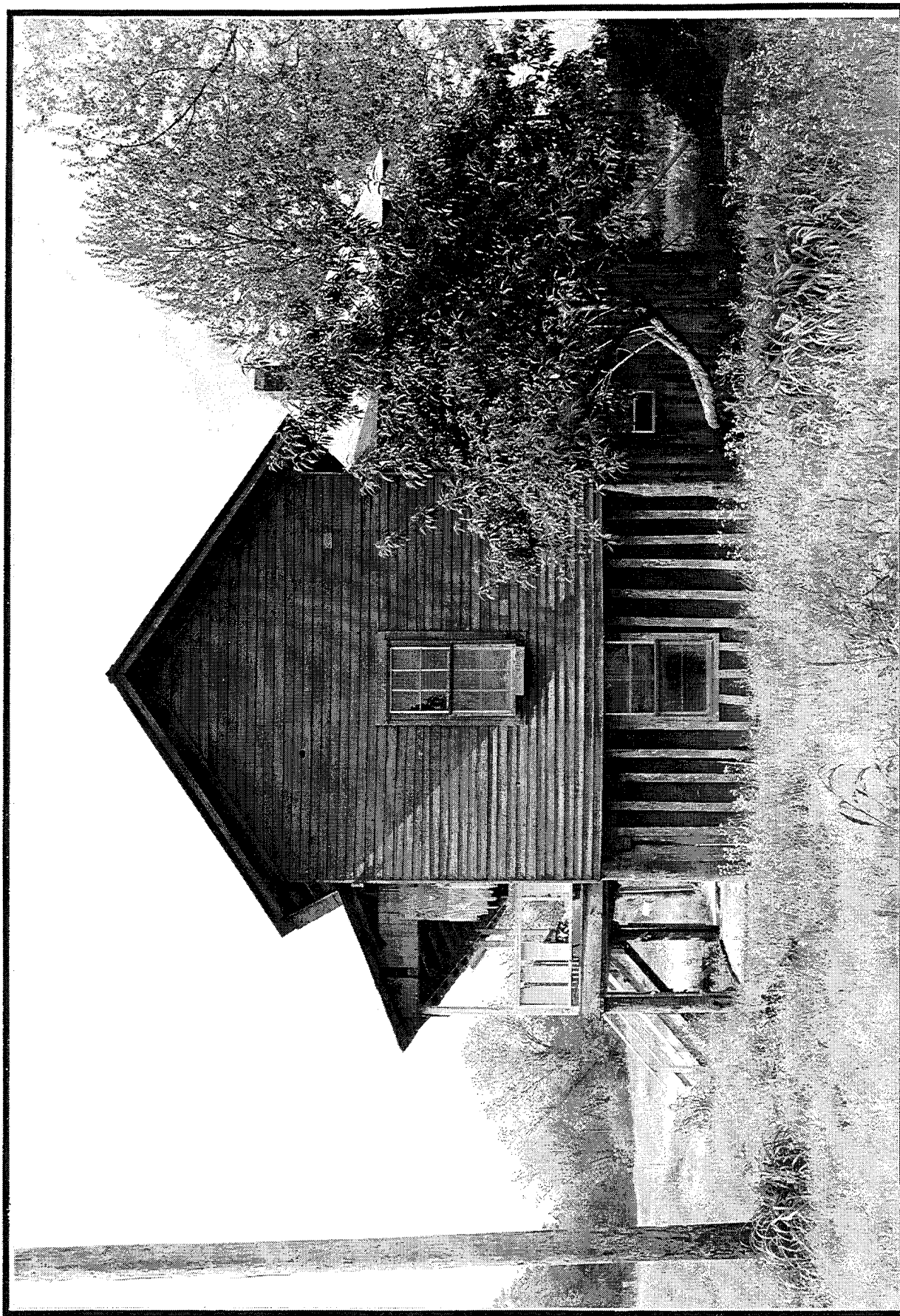


Figure 12. View of the Northern Section House, Floweree, Mississippi, North Elevation.



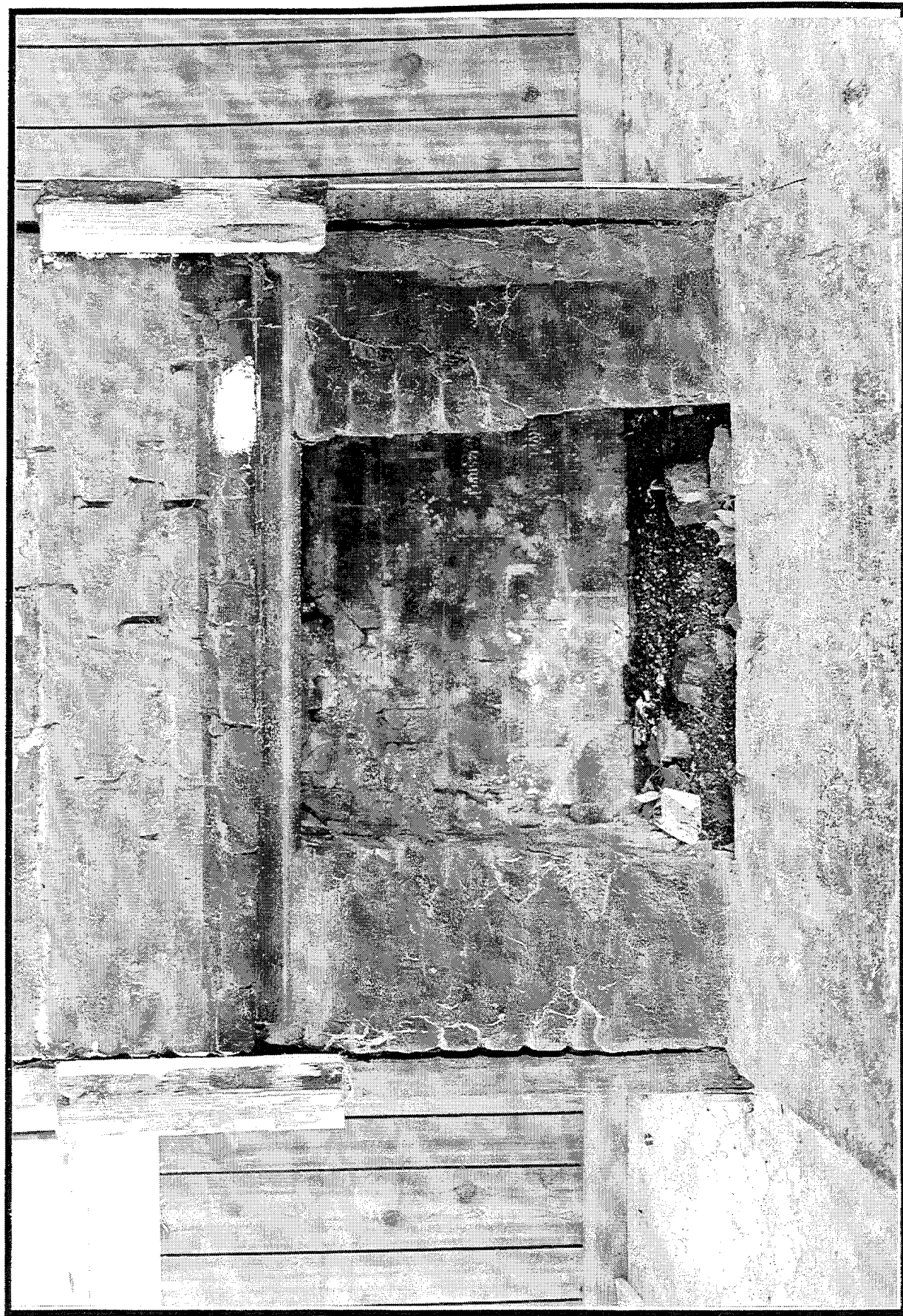


Figure 13. View of Typical Section House Fireplace, Note Steel Rail for Lintel.

the gabled frame for the front bay (similar to the crew's residences) with rafters forming a shed roof extending from the gable to the rear exterior wall. Penetrations for doors and windows are similar in size and location for all three buildings. In the case of the foreman's residence these similarities occur under the gabled roof. Awareness of environmental factors which effected design and construction of the Mahannah Farms section houses may be seen in the height of the structures above the existing floodplain (Figure 14). Moreover, elevating the houses allowed cool air to circulate under the living spaces, a technique that is common to the southern vernacular style (Figure 15). Raising the houses level with the nearby elevated railroad tracks suggests a response to the annual flooding which occurs in the Mississippi Delta, and may have served in a secondary capacity of ease in access to the railroad for the loading/unloading of personnel and supplies.

Tall, double hung windows provided natural cross ventilation and the ventilation of hot air, and the air space created by the steep-sloped gabled roof provided additional insulation for the house (Figure 16). In all cases, the houses were heated by a central fireplace, typical to patterns seen in early American houses of the era (Figure 17). Only the base of the chimney of the foreman's residence was open for examination. This chimney maintains a "channeled" or indentation in the base which is of unknown function (Figure 18).

Awareness of cultural factors which may have effected construction were also recorded during the study. The most significant of these is the fact that the foreman (believed to have been white) lived in a 5-room single family residence while the section hands (usually black) resided in small, cramped quarters with two families to each 2-room structure.

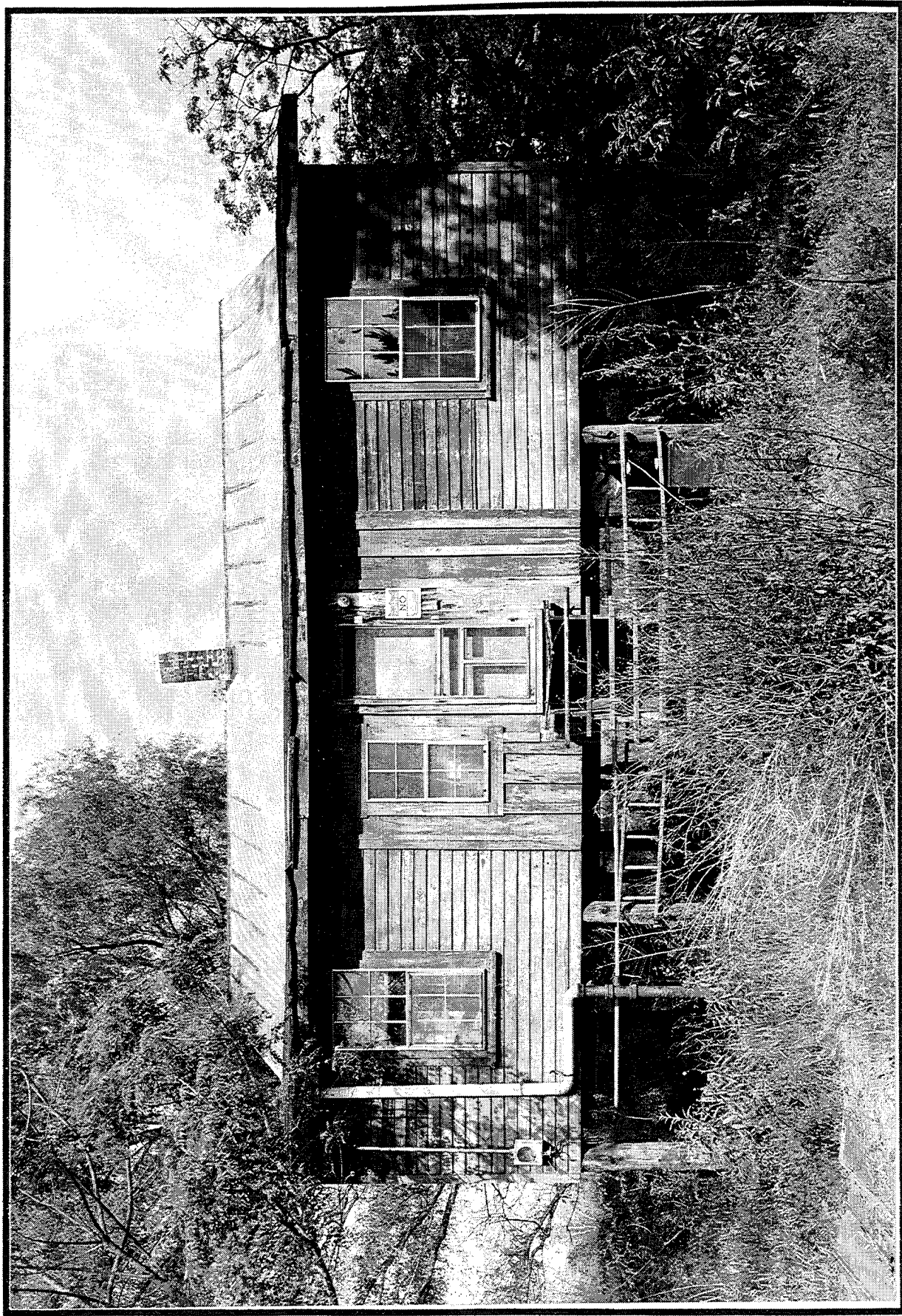


Figure 14. View of Section Foreman's Residence (West Elevation), Note Elevation above Floodplain.



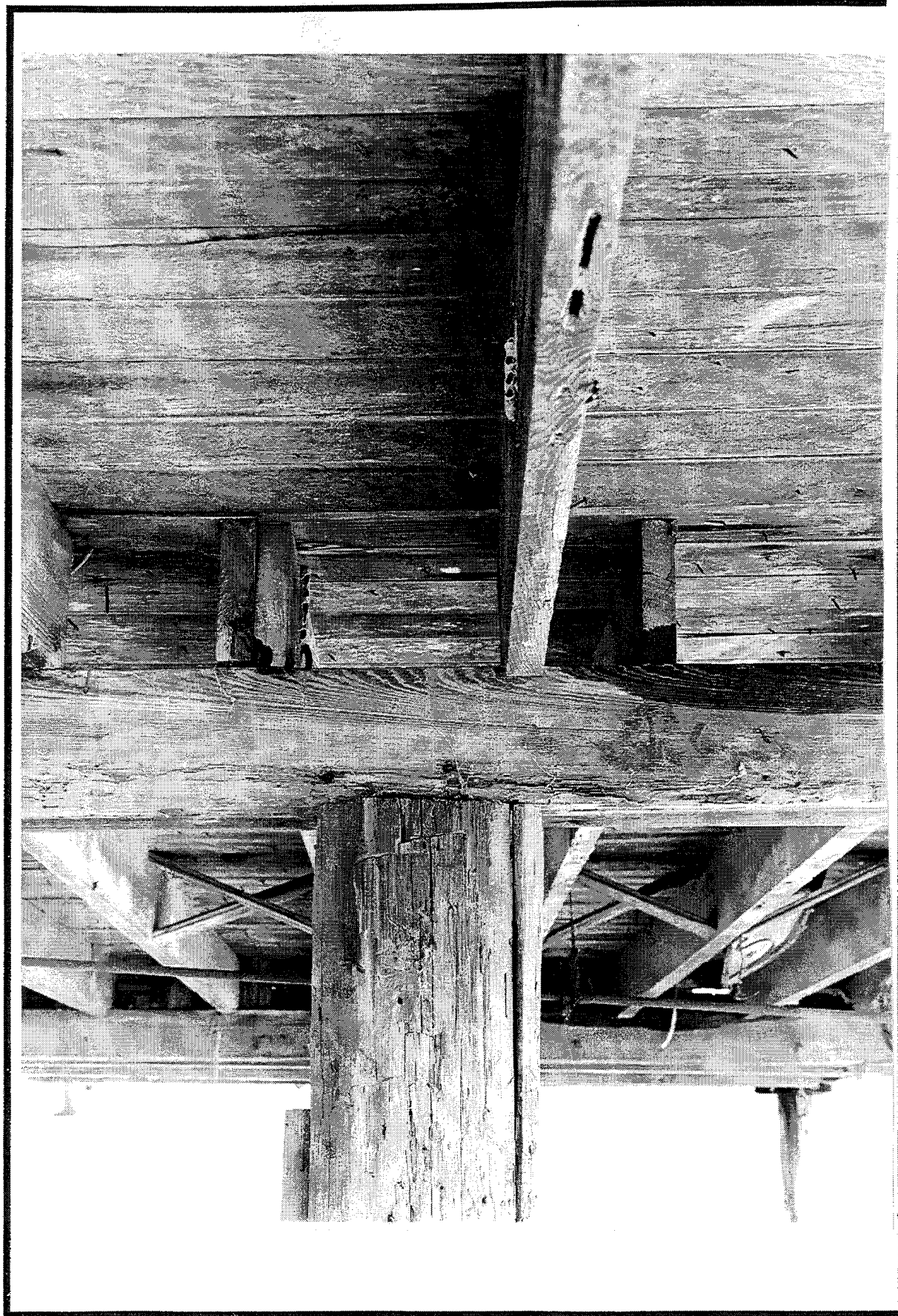


Figure 15. View of Pile/beam Construction Technique, the Foreman's Residence, Floweree, Mississippi.

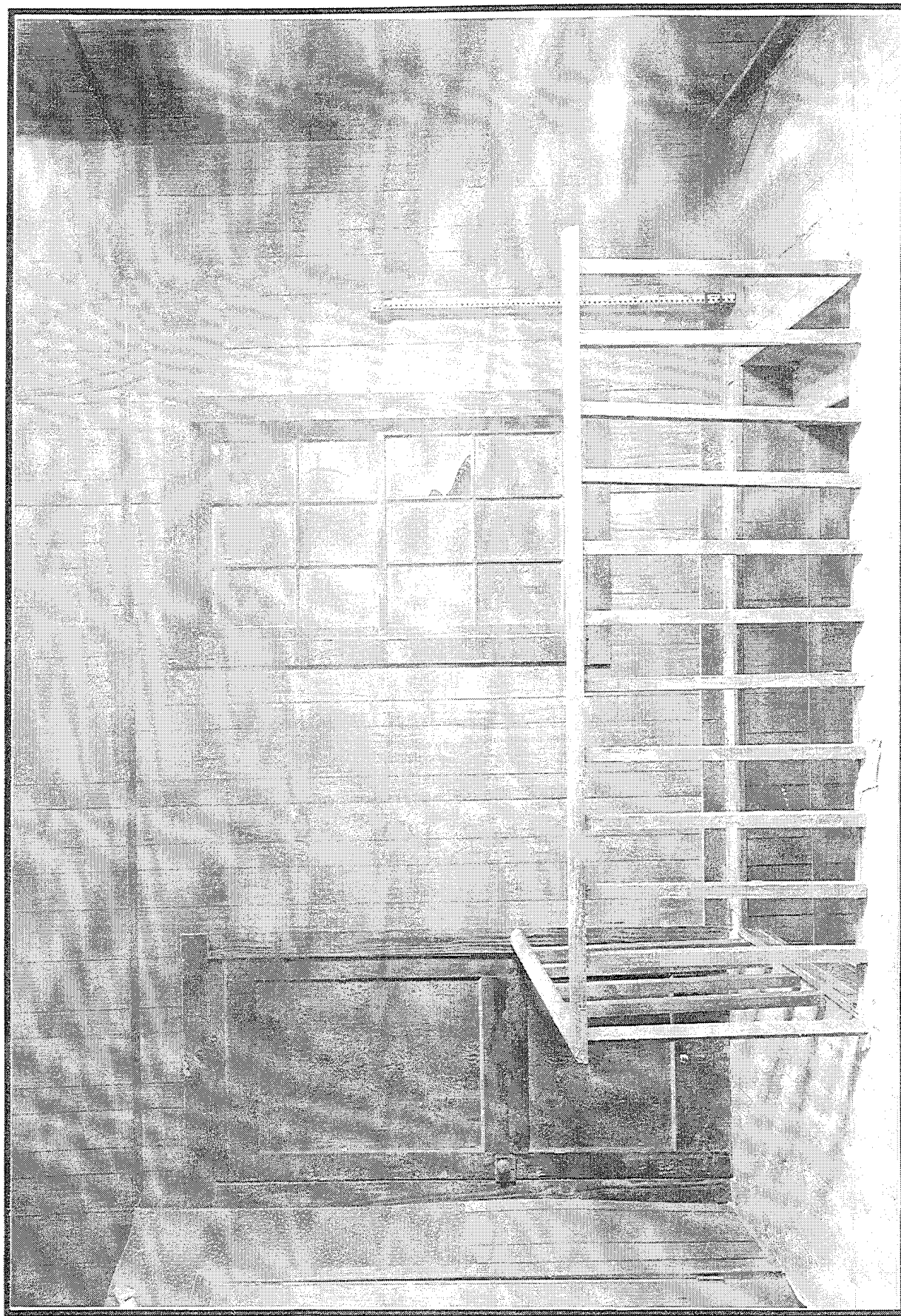


Figure 16. View of Double-hung Window in the Central Section House, Floweree, Mississippi.



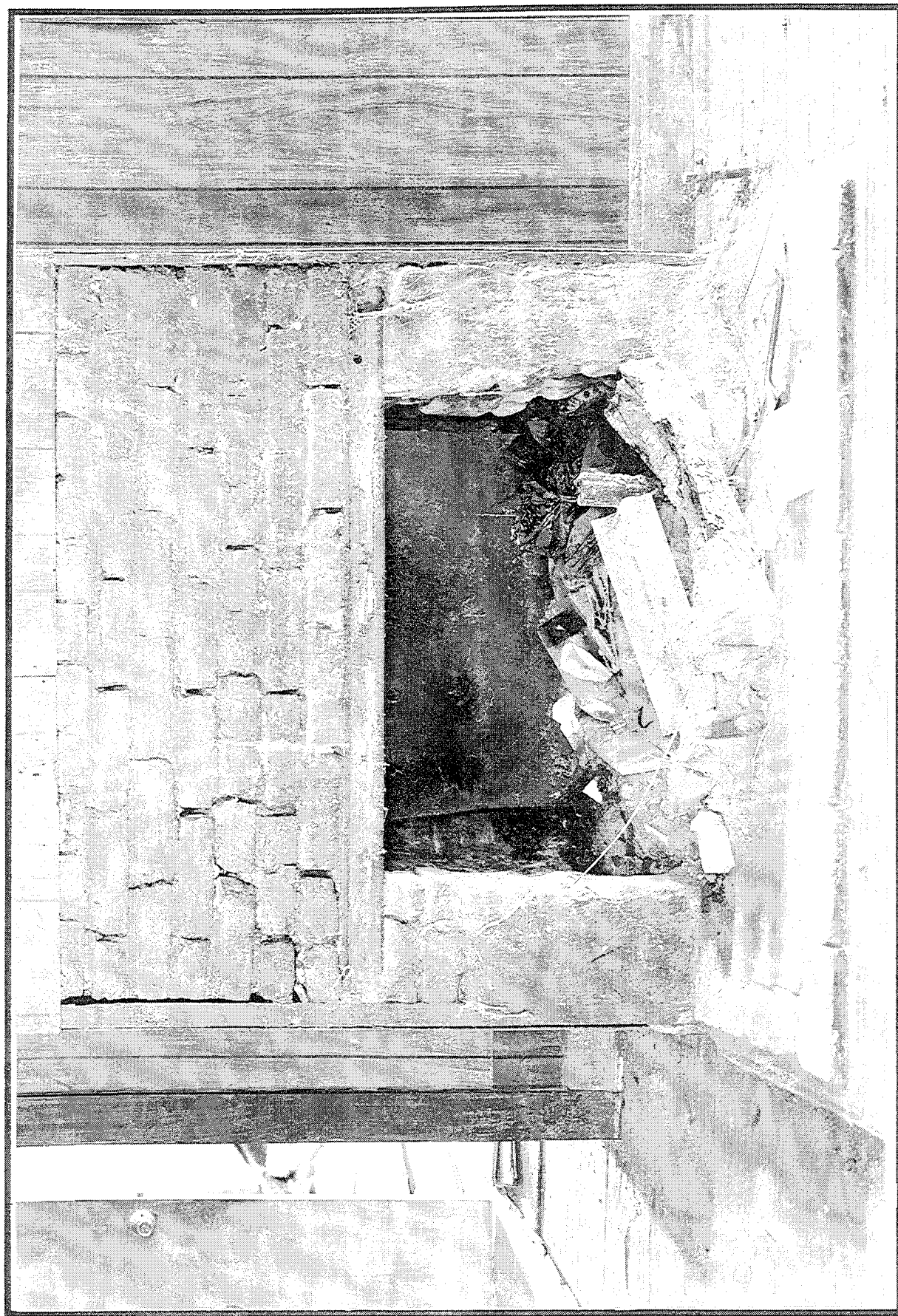


Figure 17. View of Typical Central-wall Fireplace.

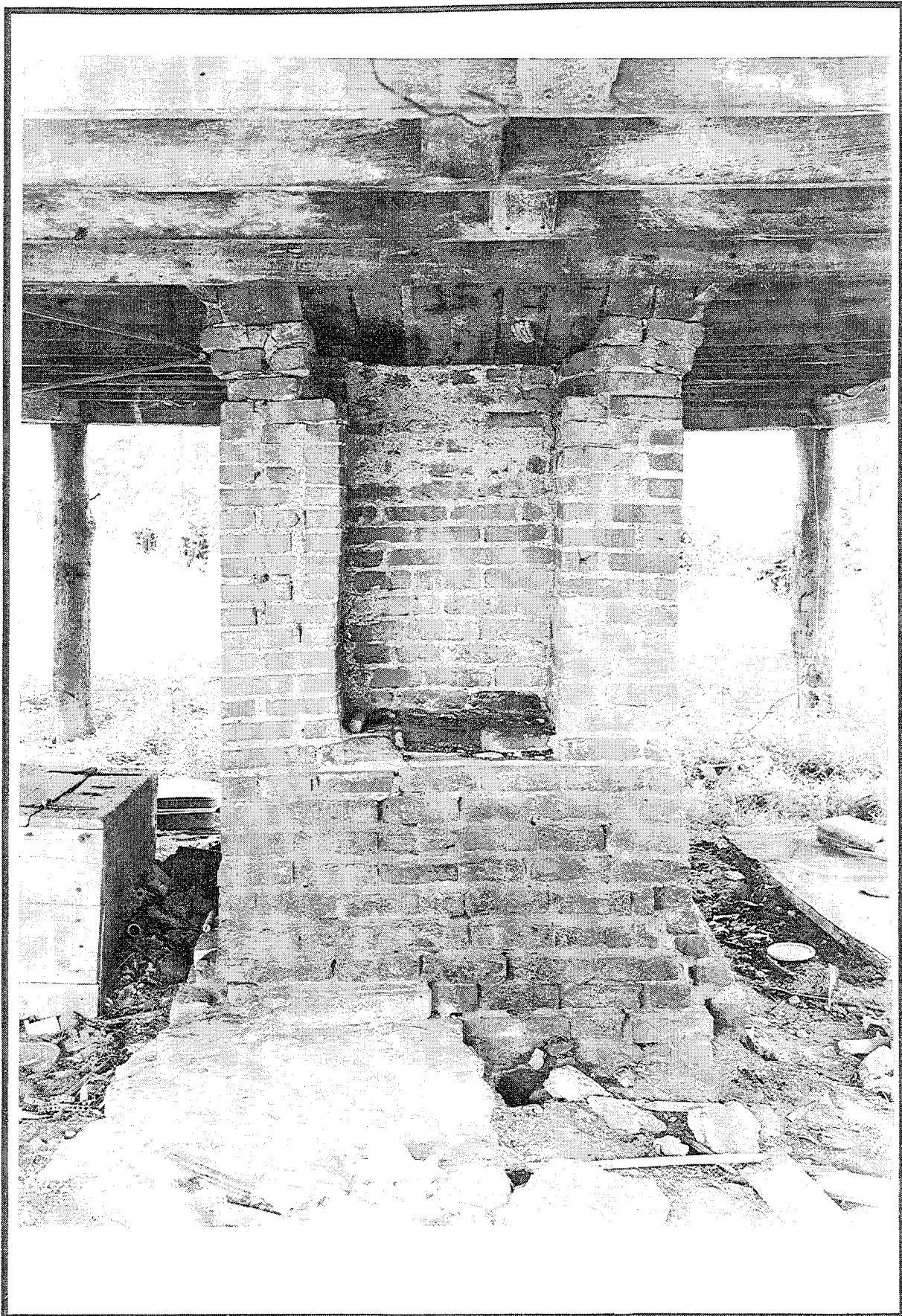


Figure 18. View of Chimney under the Section Foreman's Structure, Note Indentation.

Another aspect of construction believed to indicate social conditions is the variation of ceiling heights between the foreman's residence and those of his crew. Although the plate height is the same throughout all three structures, the ceilings of the crew's quarters are substantially lower (9'-7" high versus 11'-4" high) than that of the foreman's residence. Architecturally, ceiling height was a critical passive energy tool in the design of a house in the Mississippi Delta (and elsewhere in the South) where the removal of hot air away from the living space is seen as critical in an attempt to achieve relief from the heat of the summer sun during times prior to the utilization of modern active air conditioning systems. In general, the higher the ceiling, the cooler the living space. Since the building technique used to construct the basic shell of all three section houses at Floweree was the same, the quantity of material used on the exterior of all three structures was also the same. Therefore, raising the ceiling heights in the crews' residences would have only increased the quantity of the interior finish of wood boards by a modest amount. This, however, was not done. This is believed to be an indication of the occupational and social status of the foreman.

A final indicator of social status of the foreman may be seen in the difference in floor finishes between the section houses. While the foreman's residence had a tongue and groove wood floor on a wood plank subfloor, the crew houses had only a wooden subfloor to serve as the finished floor surface. Taken together, all of the variations recorded during the Mahannah Farms study indicate that variations in a number of the elements of construction are considered to represent human behavior as well as social class distinction between the foreman and the four section hands.

The Mahannah Farms section houses have stood as a silent reminder of the importance of a section foreman and his crew, once an important element in the maintenance of railroad rights-of-way during the late 19th and early 20th centuries. The recording of these structures to HABS/HAER standards will serve to preserve information important in the understanding of life along the railroad in a remote area of the Mississippi/Yazoo delta.

The section foreman paid a monthly rent to the railroad for use of his quarters. The laborers did not, enjoying the housing as a perquisite from the company. According to C.B. Newman of Valley Park, Mississippi, whose father served from 1917 to his death in 1945 as section foreman at Valley Park, the first station north of Floweree, the railroad charged a monthly rental fee of approximately ten dollars. (C.B. Newman 1994, personal communication).

The women and children who inhabited the section houses led an isolated existence. The railroad provided their only link to another settlement, the closest often being the next section station up or down the line, ten to fifteen miles distant. Supplies came by train. The Illinois Central operated what the section people referred to as the "grab", a supply train that furnished section men and other rural employees with groceries, clothing, and other provisions. In its initial decades of operation, the company also disbursed monthly payments to employees by train. A pay car made its way down the line carrying a well-protected paymaster who distributed payments in cash, often gold or silver coins. Once the company began resorting to payment by warrant, it abandoned the pay car, resorting to mail delivery to compensate employees (Vicksburg Evening Post:1934).

Life in the section houses of the Yazoo Delta reflected the isolated and primitive conditions of the locale. Newman recalls that water was brought into the dwelling from a pump

house and children bathed in a "number 3 wash tub." The laborers' houses contained two units, consisting of one room per unit. That one room served a universal function for each family: bedroom, living room, and kitchen. Children traveled to school by train. Little recreational opportunity was available. The children of the foreman, without exception a white man, and the children of the laborers, invariably black, played together (C.B. Newman 1994, personal communication).

Black Americans occupied a conspicuous role in the development of railroading in the United States during the period when the Flowerree section houses were in use. Further, black slaves worked on construction gangs in the South before the Civil War. In the Reconstruction Era, railroad companies employed black laborers in droves to build and maintain track and to fulfill many other roles in the industry that were consigned to their race. Until the barriers against discrimination in American society began to crumble in the mid to later part of the twentieth century, black employees in the railroad industry, throughout the North and the South, seldom rose above the status of section hand, construction worker, porter, baggage hauler, or dining car waiter. A few blacks became fireman, brakemen or engineers, but as late as 1910, the census reported that 66% of the blacks employed in the railroad industry worked as laborers or section hands (Risher 1971:1-2). Regulations issued in 1919 by the Columbus and Greenville Railway Company restricted the percentage of blacks in any of its divisions to that number which prevailed in 1910 (Columbus and Greenville Railway Company 1919:13).

Nevertheless, in a society which offered little opportunity to the black American, employment by a railroad company was highly coveted. A steady income, comparatively reasonable assurances of job security, established hours and conditions of work, occasional

provisions for health care, and the possibility of a pension were among the benefits available to all railroad employees, black and white. For the black section crew laborer stationed in a remote location, rent-free housing constituted an additional and not insignificant perquisite of work on the railroad.

The conditions of their daily labor, moreover, undoubtedly provided a freedom from social strife and discrimination that few blacks in other settings enjoyed. They worked virtually alone, after all, in crews of two, three, or four, under the direction of a white supervisor who was also a close neighbor. Each day they rose from bed, ate breakfast, and headed out upon the track aboard the hand car with the section foreman to monitor their assigned length of rail. As repairs or improvements to the rails, ties, or grade were needed, a part or all of the crew proceeded to make them, pausing in their daily labors to stand aside as one of the frequent freight or passenger trains sped by. If the work site was close to the section house, they returned to eat a midday meal at home. If distance warranted, they carried their lunch with them (C.B. Newman 1994, personal communication).

The labor was often strenuous, maneuvering heavy rails or ties into place, hammering in spikes, or improving the grade with shovels. But the tasks were surely ones with which they became easily familiar. If additional help was required to repair or improve a part of the line, the company despatched a "floating" crew of workers to the section in need of repair. They arrived aboard "camp cars" that provided living accommodations. Such cars were stationed at a siding of track for the duration of the work. In some section locations, the foreman and the laborers resided in camp cars until houses were constructed for them. That was probably the case during the last



decade of the nineteenth century before the Illinois Central completed development of facilities along the Yazoo and Mississippi Valley Railroad.

Local informants believe that the section houses at Floweree and Valley Park were built between 1900 and 1905, about a decade after the Illinois Central took possession of the route (C.B. Newman 1994, personal communication; Site Form, Mississippi Department of Archives and History).

The section foreman occupied a prominent place in the locality. If, as often proved to be the case, a small settlement or several farmsteads grew around or near the section houses, the section foreman provided the human link to the railroad, upon which all farmers, tenants, land owners, and other occupants of property along the line depended. In 1922 a large saw mill was erected near the Valley Park section houses. Around them also appeared five stores, a two-story hotel, ice cream parlor, pressing shop, and a two-story train depot (MississippiEPA News 1989). C.B. Newman's father, section foreman at Valley Park, also owned acreage in the vicinity which he leased for farming. The elder Newman served several terms in the Mississippi State House of Representatives, winning election in a district that reached southward from his home in Issaquena County to incorporate a part of the City of Vicksburg. During legislative sessions, the Illinois Central assigned a temporary replacement to supervise Newman's Valley Park section. On Sunday mornings, Newman held a Bible reading service on his front porch for residents in the vicinity (C.B. Newman 1994, personal communication).

When a section foreman retired or otherwise vacated his position, other company foremen could "bid" for it on a seniority basis. Occupancy of the position appeared to have been fairly stable. That was not unusual, for employment in the railroad offered workers conditions that were

not found in many other American industries in the late nineteenth and early twentieth centuries. That fact proved especially true in many regions of the South, where for decades after the Civil War railroads comprised by far the largest and often only organized and stable industry. Employees who spent more than a half century working for one company were not uncommon. Employment was also often a family affair. Sons followed their fathers into the company. Many of the biographical statements in *History of the Illinois Central Railroad 1900* document this tradition.

The Illinois Central accorded employment, housing, and pension rights to its employees, provided transportation for workers, their wives or husbands and children, sent trains to replenish supplies, and even extended medical care to railroad families. A company doctor delivered the babies of employees' wives, cared for them and members of their families when they fell ill, and attended to on-the-job injuries. The company maintained a hospital for employees in Paducah, Kentucky. It was initially established by Huntington, then taken over and continued by the Illinois Central. The forty-five beds available for patients were, of course, divided into separate wards for blacks and whites at the turn of the century. The Paducah facility served the company's southern district, which employed fifty-four local surgeons. In 1899 the hospital accepted 492 white and 393 black patients. It was funded by an approximately one percent charge against employee compensation (Illinois Central Railroad 1900:713).

### **The Twentieth Century Decline of the Railroad**

The railroad industry has experienced a slow and only occasionally interrupted decline in the past seventy years. Although it remained in the early part of the century virtually the only major carrier of freight and passengers, the industry's revenues dropped sharply between 1908 and

1920 under the rate supervision of the newly established Interstate Commerce Commission (ICC). At the same time, the growing unionization of labor during the Progressive Era administrations of Theodore Roosevelt, William Howard Taft, and Woodrow Wilson led to steadily increasing wages. Section foremen, for example, received an average annual wage of about \$700 a year between 1909 and 1913. By 1920 that figure had risen to \$1,064 a year (Cranford 1989:102).

Employment in the railroad industry reached a peak in the 1920s. Widespread use of the automobile began to make serious inroads into rail passenger traffic. During World War II, use of the railroads to carry both freight and passengers, particularly troops, led to resumption of services at previous record rates, but since that time the decline of the industry has been precipitous. Competition from the trucking industry, which enjoys comparatively low-cost use of interstate and local highways maintained by the federal government (while railroads must continue to construct their own lines), has deprived the railroads of much of their freight revenue. Moreover, airlines and automobiles have eliminated all but a few highly subsidized passenger routes operated under quasi-governmental administration. The number of people employed by the railroads has consequently fallen dramatically.

Regarding section hands, the number of employees performing maintenance-of-way has experienced consistent erosion since the late 1920s. The first serious cuts in that part of the railroad workforce came during the Depression Era of the 1930s under the duress of sharply lower revenues. For the first time in seventy years, the Illinois Central failed in 1931 to make a dividend payment. Company officials began cutting every part of the company's operations. Maintenance-of-way, which consumed about thirty percent of operating costs, provided an obvious target to economizing executives. As traffic began to rise again with the advent of military

preparations for war in the late 1930s, the Illinois Central placed renewed emphasis on upgrading its roadbeds. For a brief time section gangs grew in number and size as track and bridge work expanded (Stover 1975:330). But with the end of the war, reduction of the work force resumed.

Together, growing wages and technological improvements eliminate many maintenance-of-way employees from railroad operations. More than half of the decline in railroad employment between 1950 and 1968, 365,000 workers in all, occurred among maintenance personnel (Risher 1971:17), see Table 1.

---

Table 1: Class I Railroads  
Employment Changes by Functional Group  
(1950-1968)\*

---

Functional Group	Number of Employees		
	1950	1968	% change
Equipment maintenance	348,181	132,114	- 62.1
Maintenance of way	185,080	61,117	- 67.0
Building maintenance	32,773	14,129	- 56.9
Signal maintenance	20,034	13,670	- 31.8
Train service	145,556	84,910	- 41.7
Yard operations	122,242	90,170	- 26.2
Freight terminals	70,615	22,028	- 68.8
Passenger service	33,756	11,005	- 67.4
Control of movement	30,527	16,320	- 46.5
Administration	198,609	130,547	- 34.3
Miscellaneous service	33,411	14,526	- 56.5
Total	1,220,784	590,536	- 56.5

\* (source: Risher 1971:19)

---

Of that number 142,607 were track workers, many of them section laborers (Risher1971:17-18). It seems likely that the introduction of the motorized hand car, which came into widespread use in the 1920s, led to some initial reductions in track laborers. The improved speed with which the track could be patrolled and workers transported to work places along the line undoubtedly resulted in the elimination of many sections as well as their crews.

The conversion from steam locomotives to diesel powered engines after World War II lessened the need for maintenance-of-way employees. Diesels required fewer units to handle traffic, reducing the stress upon the roadbed. The decline in traffic also lessened the need for constant repairs along the line. Improvements in rails, ties, and other materials that were used in the construction of a railroad bed played an even more important role in maintenance improvements. Advances in portable equipment and growing specialization of labor were introduced. Separated crews patrolled the line in faster vehicles, replacing ties, relining rails, and resurfacing track (Risher 1971:20-21). Whereas in the past floating crews were brought to a site only to perform major tasks, now all the work, even inspection, was performed by fast-moving small floating crews despatched from central administrative and maintenance shops over long distances. The need for section houses had, by mid-century or shortly thereafter, all but vanished.

### **Disposition of the Section Houses at Floweree**

The section houses at Floweree, isolated and serving a section location that did not contain any other facilities, were among the first to be abandoned by the Illinois Central in the process of consolidating and centralizing its repair functions, probably by the 1940s. Although the railroad continued service along the line, it withdrew the section crew from Floweree sometime in the 1950s

(C.B. Newman 1994, personal communication). Its service upon that stretch of line was not, however, terminated until 1984.

In 1964, one of the section houses (the foreman's house) at Floweree was occupied by Franklin Clark and his wife, Ruth. Other tenants could not be located or documented during the course of this study. Clark was an employee of Anderson-Tully, an agricultural company which had purchased much of the surrounding land. Clark farmed the surrounding acreage for the company (Corinth Daily Corinthian 1993). Clark's widow, Ruth, was the last resident of the complex of three houses. Upon Anderson-Tully's sale of its lands to the U.S. Army Corps of Engineers in 1992, the Floweree section houses were vacated.

## **Summary and Conclusions**

The architectural and historical documentation of the Mahannah Farms railroad section houses at Floweree, Mississippi was completed in order to record these structures in accordance with Section 106 compliance. The completion of this investigation has achieved this goal. Moreover, the completion of measured drawings to HABS/HAER standards and the documentation of the historical significance of these historic properties has also been achieved.

Following the original survey, the section houses were evaluated in terms of National Register Criteria (36CFR60.4), and were considered eligible for inclusion in the National Register of Historic Places under Criterion C. The study has documented that these resources are significant to the local and regional history of the railroad industry in the Yazoo Basin and the

greater Mississippi Delta. Due to the fact that these structures have been heavily altered, the architectural significance of these structures has been effected by post-construction modifications. As a result, these structures are not considered architecturally significant.

The three vacated section houses at Floweree, Mississippi offer quiet testimony to the role of the section hand in the history of American railroads. The lives and work of the men and their families who maintained the rails has formed an enduring part of the abundant lore attached to the railroad. These houses were built by the Yazoo & Mississippi Valley Railroad, a part of the Illinois Central system, about the turn of the century. They housed in one building the section foreman and his family; in two others, four section crewmen and their families.

The section hands and the foreman at Floweree exercised the essential responsibility for maintaining approximately 10 miles of the right-of-way. Changes in the industry and modernization of equipment have resulted in replacement of the detached section crews by floating crews dispatched from central locations. Such changes resulted in abandonment of the section facilities and stations along rail lines not only at Floweree, but also throughout other sections of the country. The section houses at Floweree appear to be among a small number of these structures which remain as testimony to the era when the railroad played a significant role in America's transportation network and in the lives of its people.

The study of the Floweree railroad section houses has added significant information to our knowledge of the history and development of the railroad industry in the Mississippi/Yazoo River delta during the late 19th and early 20th century. It is believed that the exterior walls of the foreman's structure are original. However, it appears, that considerable modification of interior of the foreman's residence as well as the interiors and exteriors of the two remaining section hands'

structures has taken place. The framing technique of post-construction modifications to the section crew structures (i.e. platform versus balloon), the placement of wood pilings on isolated concrete footings in lieu of being sunk in place, and the exterior finish (board and batten versus lapped siding) support this view.

The original structures used to house the section crews at Floweree consisted of two one room apartments with a central fireplace located within the demising wall. The houses appear to have been built using stock details, a standard structural module with variations on a central theme, with construction techniques and a vocabulary easily applied to remote locations by a construction crew working from a railroad car. The basic house plan or shell was that of the typical crew residence: an elevated structure that was one room deep by two rooms wide with a gabled roof and a front porch. The foreman's residence was constructed in the same basic form with the addition of three rooms at the rear of the house resulting in a structure two rooms deep with two rooms at front and three rooms along the rear. Penetrations for doors and windows are similar in size and location for all three buildings. In the case of the foreman's residence these similarities occur under the gabled roof.

Raising the section houses on piles allowed cool air to circulate under the living spaces, a technique that is common to the southern vernacular style. Moreover, this effort also served to keep the houses above the frequent flooding which occurs in the Mississippi Delta, and may have served in a secondary capacity of ease in access to the railroad for the loading/unloading of personnel and supplies. The Yazoo River was flooding at the time of survey and the field crew watched as the waters of the river inundated farm fields near the section houses.



Tall, double hung windows provided natural cross ventilation and the ventilation of hot air, and the air space created by the steep-sloped gabled roof provided additional insulation for the house. In all cases, the houses were heated by a central fireplace, typical to patterns seen in early American houses of the era.

Awareness of cultural factors which may have effected construction were also recorded during the study. The most significant of these is the fact that the foreman (believed to have been white) lived in a 5-room single family residence while the section hands (usually black) resided in small, cramped quarters with two families to each 2-room structure.

Another aspect of construction believed to indicate social conditions is the variation of ceiling heights between the foreman's residence and those of his crew. In general, the higher the ceiling is, the cooler the living space. The foreman's ceiling height was nearly two feet (11'4" vs. 9'7") higher than that of the crew's. This is believed to be an indication of the occupational and social status of the foreman.

The foreman's residence had a tongue and groove wood floor on a wood plank subfloor, while the crew houses had only a wooden subfloor to serve as the finished floor surface. This additional amenity is also seen as an indicator of social status of the foreman.

All of the variations recorded during the Mahannah Farms field survey indicate that variations in a number of the elements of construction may represent human behavior as well as social class distinction between the foreman and the four section hands. This view offers direct evidence of how social and occupational status affected the behavior of people during the time in which the Mahannah Farms sections houses played a vital role in the maintenance of the Illinois Central Railroad in Mississippi during the late 19th and early 20th centuries.

The Mahannah Farms section houses have stood as a silent reminder of the importance of a section foreman and his crew, who once were an important element in the maintenance of railroad rights-of-way during the late 19th and early 20th centuries in the Mississippi Delta. The recording of these structures to HABS/HAER standards will serve to preserve information important in the understanding of life and architecture along the railroad in a remote area of the Delta region.

## Bibliography

### Books and Articles

Bragg, Marion B.

1964 British Land Grants in Warren County, Mississippi. *Journal of Mississippi History* Vol. 26, No. 3, 229-234.

Brandfon, Robert L.

1967 *Cotton Kingdom of the New South*. Cambridge, Massachusetts: Harvard University Press.

Columbus and Greenville Railway Company

1919 Schedule of rates of Pay, Rules and Regulations. C. B. Newman Collection.

Corliss, Carlton J.

1950 *Main Line of Mid-America; the Story of the Illinois Central*. New York: Creative Age Press.

Cranford, Sammy O.

1989 *The Fernood, Columbia and Gulf*. New York: Garland Publishing, Inc.

Everett, George A., Jr.

1976 The History of the German-American Community of Gluckstadt, Mississippi: a Study in Persistence. *Journal of Mississippi History* Vol. 38, No. 4, 361-369.

Fairmont Railway Motors

1982 Service Instructions and Parts List Fairmont MTL 14 Series L Light Section Cars. Fairmont, Minnesota: Division of Hartsco Corp. C. B. Newman Collection.

Faries, Clyde J.

1971 Redneck Rhetoric and the Last of the Redeemers: The 1899 McLaurin-Allen Campaign. *Journal of Mississippi History* Vol. 73, No. 2, 263-298.

Fishlow, Albert

1965 *American Railroads and the Transformation of the Ante-Bellum Economy*. Cambridge, Massachusetts: Harvard University Press.

Gates, Paul Wallace

1934 *The Illinois Central Railroad and Its Colonization Work*. Cambridge, Massachusetts: Harvard University Press.

Gulf, Mobile and Northern Railroad Company

- nd Fee-Bill and Regulations for Physicians and Surgeons Employed on the Gulf, Mobile and Northern Railroad Company as Local Surgeons. C. B. Newman Collection.

Illinois Central Railroad

- 1900 History of the Illinois Central Railroad Company and Representative Employees 1900 Chicago: Illinois Central Railroad.

1990 Building Inventory Record. C. B. Newman Collection.

1950 Right of Way and Track Map Cleveland Miss. to Vicksburg Miss. C. B. Newman Collection.

Illinois Central Railroad and Yazoo and Mississippi Valley Railroad Company

- 1916 Official List # 50 of Officers, Agents, Attorneys, Surgeons, Stations, Etc." C. B. Newman Collection.

McCorkle, James L.

- 1977 The Illinois Central Railroad and the Mississippi Commercial Vegetable Market. *Journal of Mississippi History* Vol. 39, No. 2, 155-172.

McLemore, Richard Aubrey, ed.

- 1973 *A History of Mississippi*. 2 volumes. Hattiesburg: University and College Press of Mississippi.

Mohr, Carolyn Curtis, ed.

- 1951 *Guide to the Illinois Central Archives in the Newberry Library, 1851-1906*. Chicago: Newberry Library.

Moore, John Hebron

- 1979 Railroads of Ante-Bellum Mississippi. *Journal of Mississippi History* Vol. 41, No. 1, 53-81.

Morris, Ray

- 1920 *Railroad Administration*. New York: D. Appleton and Company.

Newman, C. B. (Buddy)

- 1994 Personal communication. Retired Speaker of the Mississippi House of Representatives, Valley Park, Mississippi.

Owens, Harry P.

1990 *Steamboats and the Cotton Economy*. Jackson: University of Mississippi Press, Jackson, Mississippi.

Reinhardt, Richard, ed.

1970 *Workin' on the Railroad*. Palo Alto: American West Publishing Company.

Risher, Howard W., Jr.

1971 The Negro in the Railroad Industry. *Wharton School of Finance and Commerce Report* No. 16. Philadelphia: University of Pennsylvania.

Stover, John F.

1955 Colonel Henry S. McCombs, Mississippi Railroad Adventurer. *Journal of Mississippi History* Vol. 17, No. 3, 177-190.

1975 *History of the Illinois Central Railroad*. New York: Macmillan Publishing Company.

Ward, James A.

1986 *Railroads and the Character of America 1820 - 1887*. Knoxville: University of Tennessee Press.

Wyckoff, D. Daryl

1976 *Railroad Management*. Lexington, Massachusetts: D.C. Heath and Company.

## Interviews

Hilliard, Elbert

1994 Interviewed by William R. Adams in Jackson, Mississippi, April 27, 1994

Newman, C. B. (Buddy)

1994 Interviewed by William R. Adams and Robert E. Johnson in Valley Park, Mississippi, April 28, 1994.

## Documents and Newspapers

Aden, H. B.

1894 Letter to Friend Kaglar. January 11, 1894. C. B. Newman Collection.

Biloxi-Gulfport Daily Herald

1977 Railroad Helps in Development. Newspaper clipping in subject file "Railroads Yazoo & Mississippi." Mississippi Department of Archives and History.

Clarion Ledger

1967 Illinois Central Adds 2 Railroads. Newspaper clipping in subject file "Railroads Illinois Central." Mississippi Department of Archives and History.

Columbus and Greenville Railway Company

1919 Schedule of Rates of Pay, Rules and Regulations. C. B. Newman Collection.

Corinth Daily Corinthian

1993 Historic Mahannah Farms Will Open to Sportsmen. Undated newspaper clipping. C. B. Newman Collection, Valley Park, Mississippi.

Illinois Central Railroad

1941 Route Map. Located in subject file "Railroads Illinois Central". MDAH.

1990 Structures Department Building Inventory Record. C. B. Newman Collection.

1950 Right of Way and Track Map: Cleveland, Miss. to Vicksburg, Miss. C. B. Newman Collection.

Mississippi EPA News

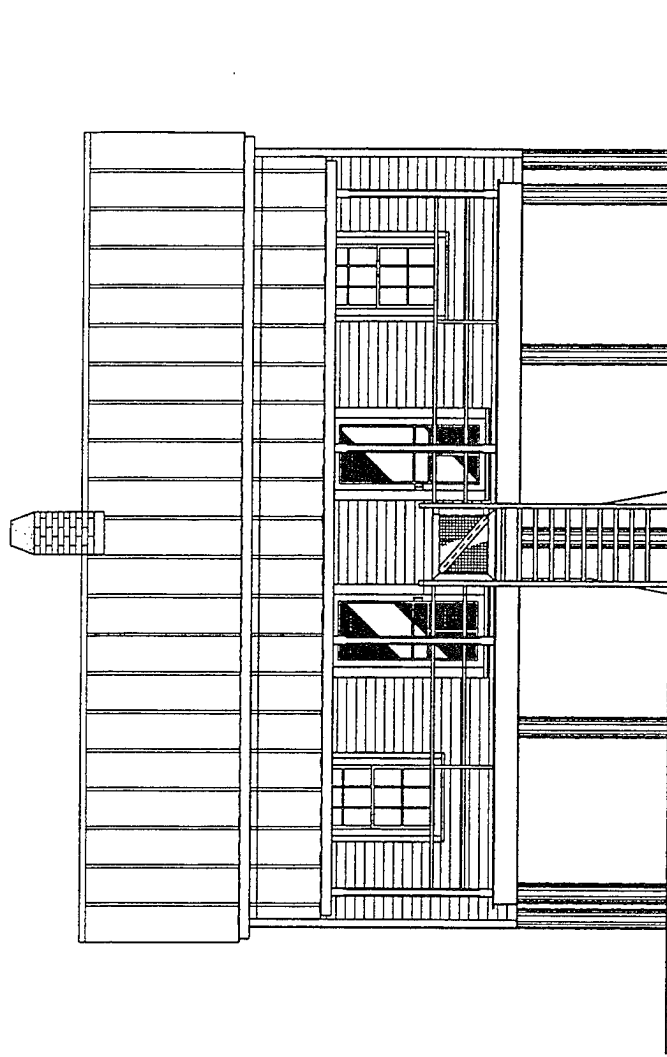
1989 Museum Preserves Valley Park's Past for Future Generations. September 1989. C. B. Newman Collection.

Vicksburg Evening Post

1934 Railroad Days of Past Told by Miss Welch. Newspaper clipping in subject file "Railroads Illinois Central." Mississippi Department of Archives and History. Jackson, Mississippi.

## **Appendix**

Measured Drawings of the Mahannah Farms  
Section Houses at Floweree, Mississippi

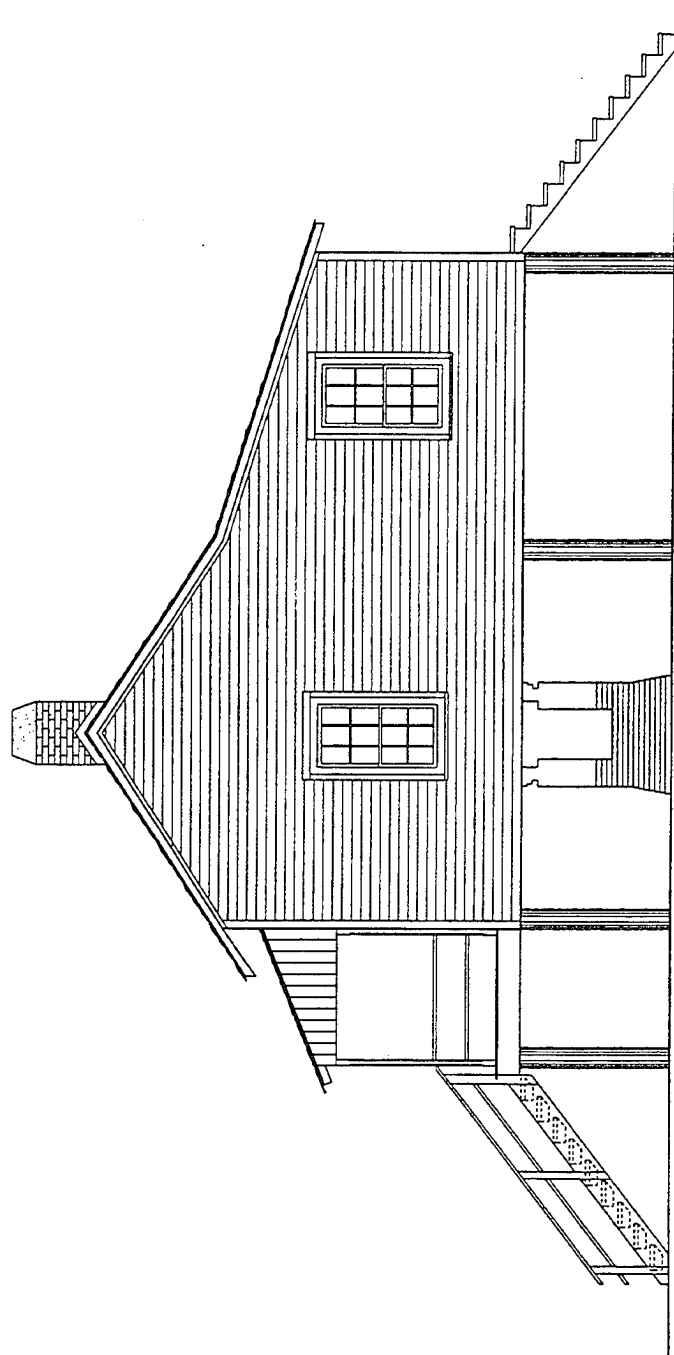


EAST ELEVATION



BUILDING A: THE FOREMAN'S HOUSE SOUTHERN STRUCTURE	NAME AND LOCATION OF STRUCTURE RAILROAD SECTION HOUSES MAHANNA FARM TRACT, FLOWEREE, MISSISSIPPI	SURVEY NO. HISTORIC AMERICAN BUILDINGS SURVEY SHEET OF SHEETS
---	--	--





NORTH ELEVATION



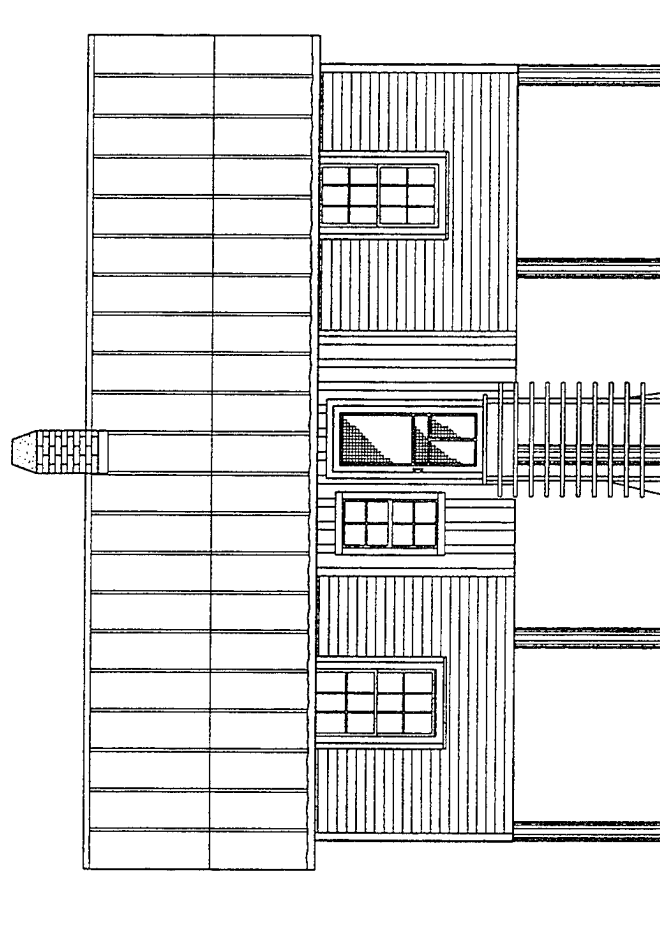
BUILDING A: THE FOREMAN'S HOUSE  
SOUTHERN STRUCTURE

NAME AND LOCATION OF STRUCTURE

RAILROAD SECTION HOUSES  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

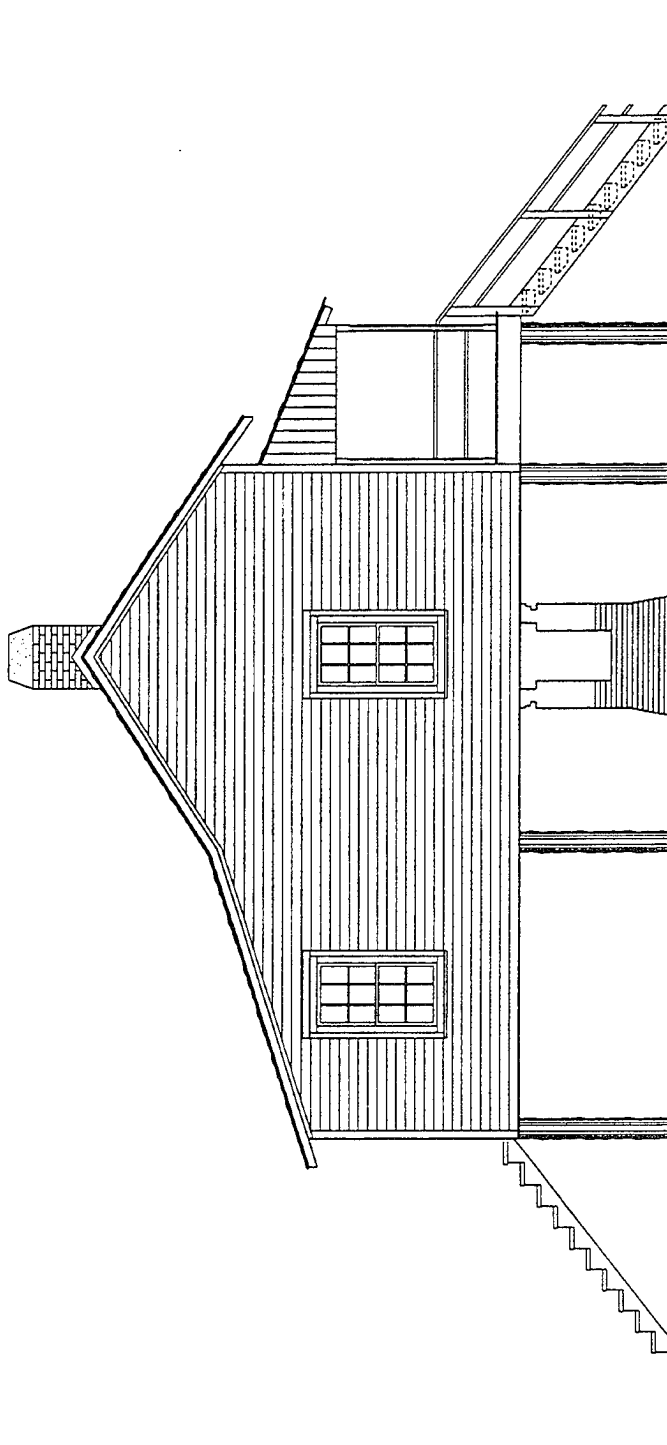
HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET OF SHEETS



WEST ELEVATION



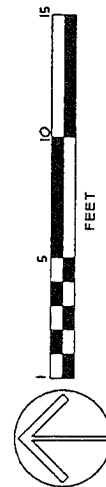
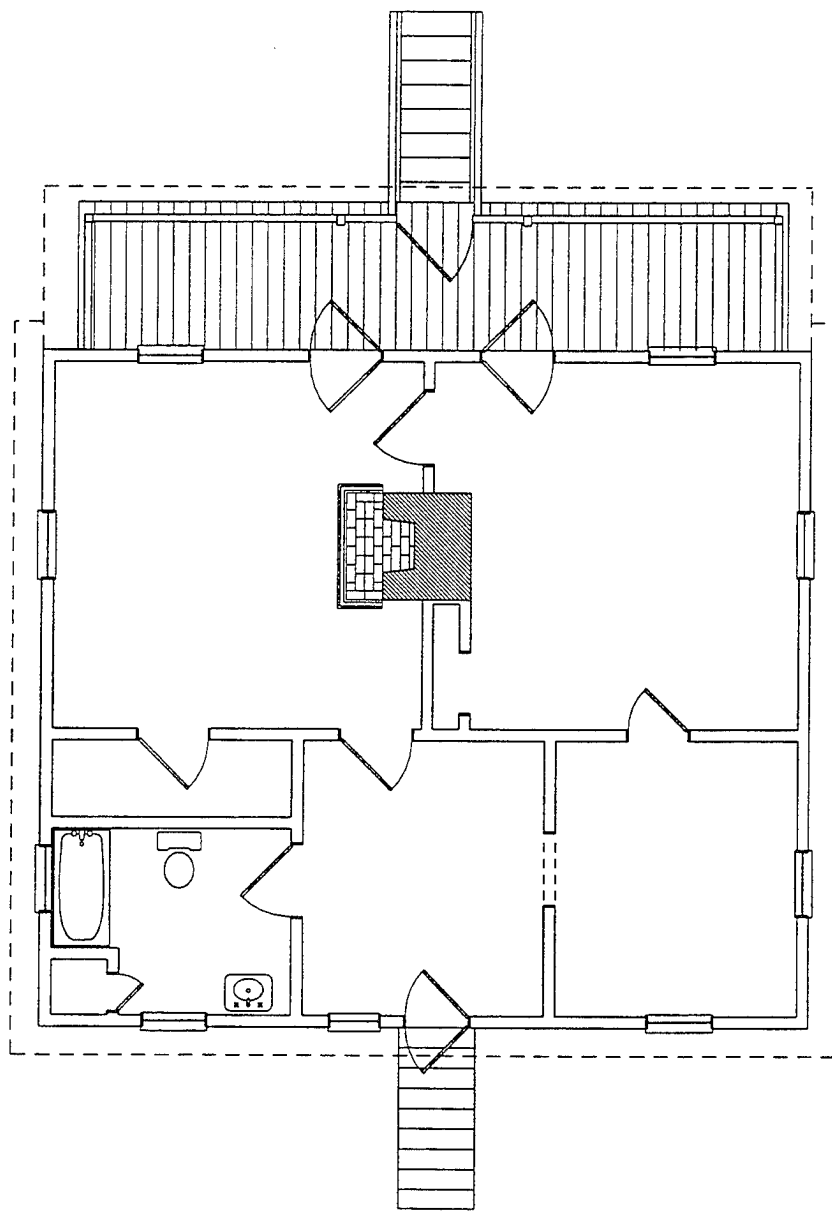
BUILDING A: THE FOREMAN'S HOUSE SOUTHERN STRUCTURE	NAME AND LOCATION OF STRUCTURE  <b>RAILROAD SECTION HOUSES</b> MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI	SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY SHEET OF SHEETS
---	---	------------	--



SOUTH ELEVATION



BUILDING A: THE FOREMAN'S HOUSE SOUTHERN STRUCTURE	NAME AND LOCATION OF STRUCTURE RAILROAD SECTION HOUSES MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI	SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY SHEET OF SHEETS
---	--	------------	--



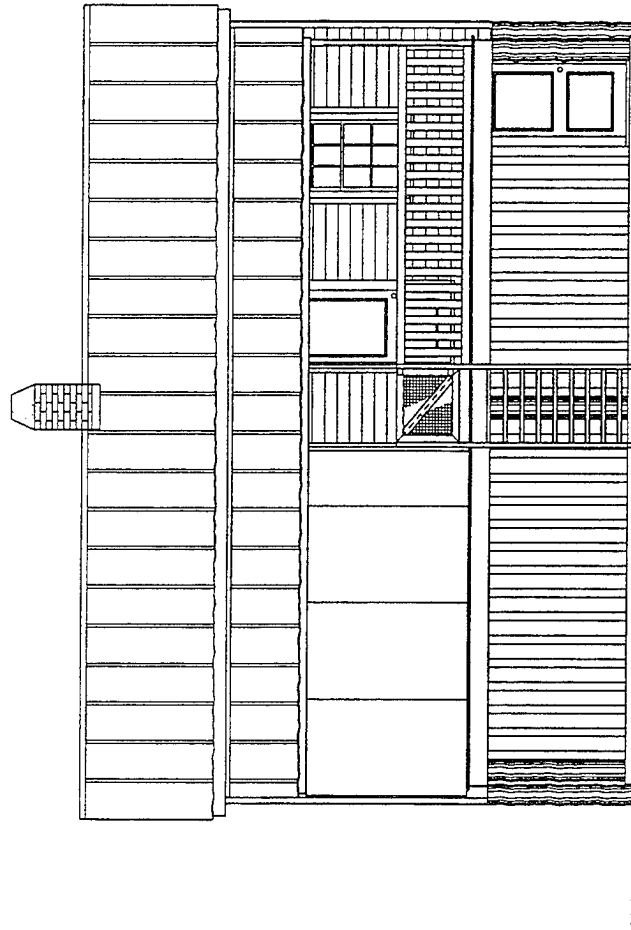
BUILDING A: THE FOREMAN'S HOUSE  
SECOND FLOOR PLAN

NAME AND LOCATION OF STRUCTURE

RAILROAD SECTION HOUSES  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET OF SHEETS



EAST ELEVATION

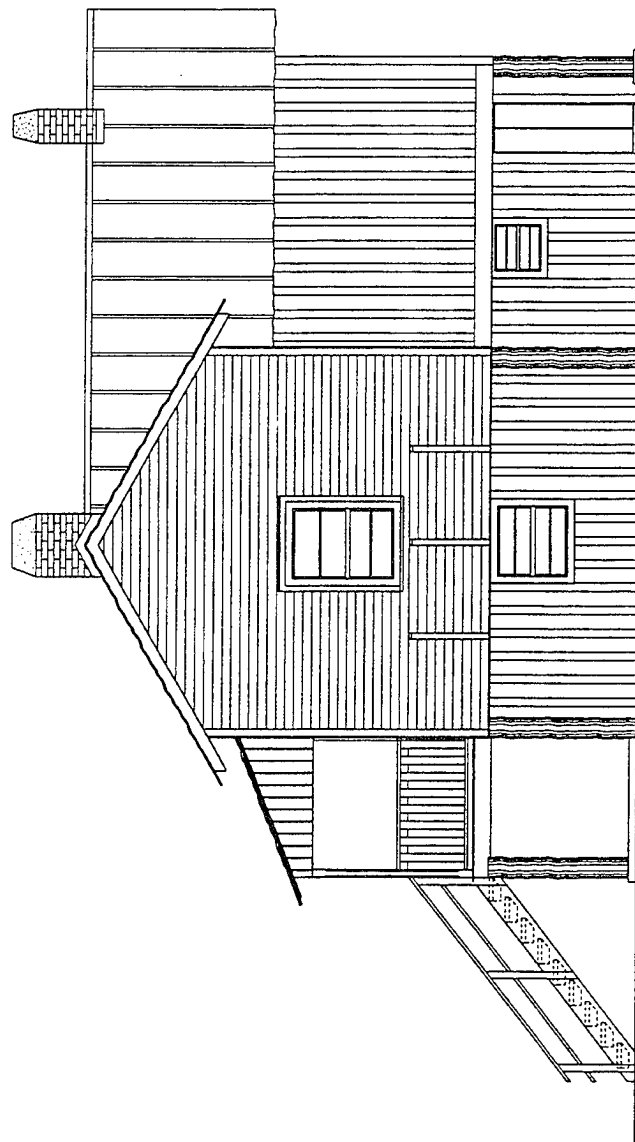


BUILDING B: THE CENTRAL SECTION HOUSE

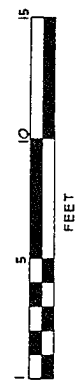
RAILROAD SECTION HOUSES  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET OF SHEETS



NORTH ELEVATION

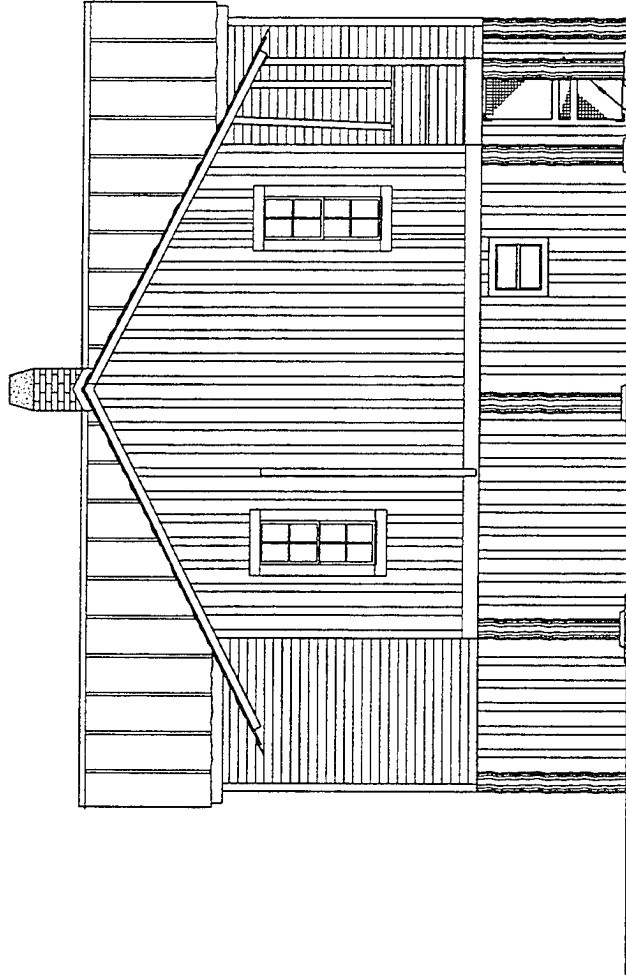


BUILDING B: THE CENTRAL SECTION HOUSE

NAME AND LOCATION OF STRUCTURE  
**RAILROAD SECTION HOUSES**  
MAHANNA FARM TRACT, FLOWEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET OF SHEETS



WEST ELEVATION



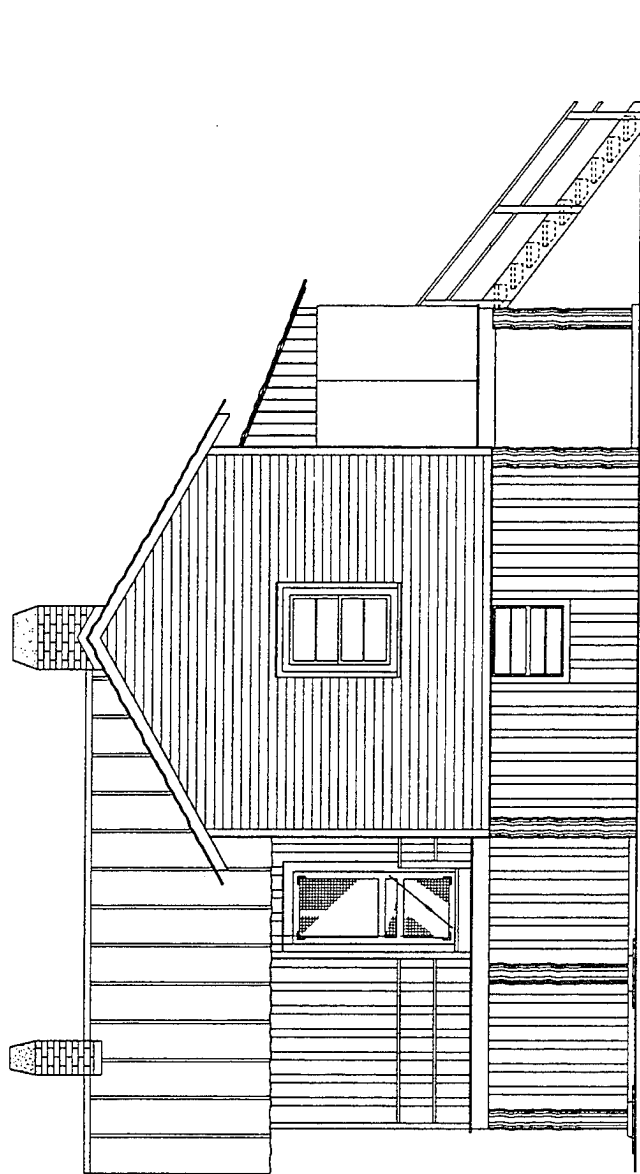
BUILDING B: THE CENTRAL SECTION HOUSE

NAME AND LOCATION OF STRUCTURE  
**RAILROAD SECTION HOUSES**  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY

SHEET OF SHEETS



SOUTH ELEVATION



BUILDING B: THE CENTRAL SECTION HOUSE

NAME AND LOCATION OF STRUCTURE

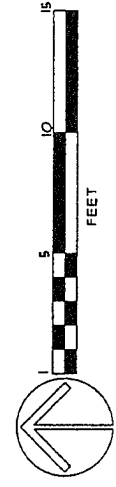
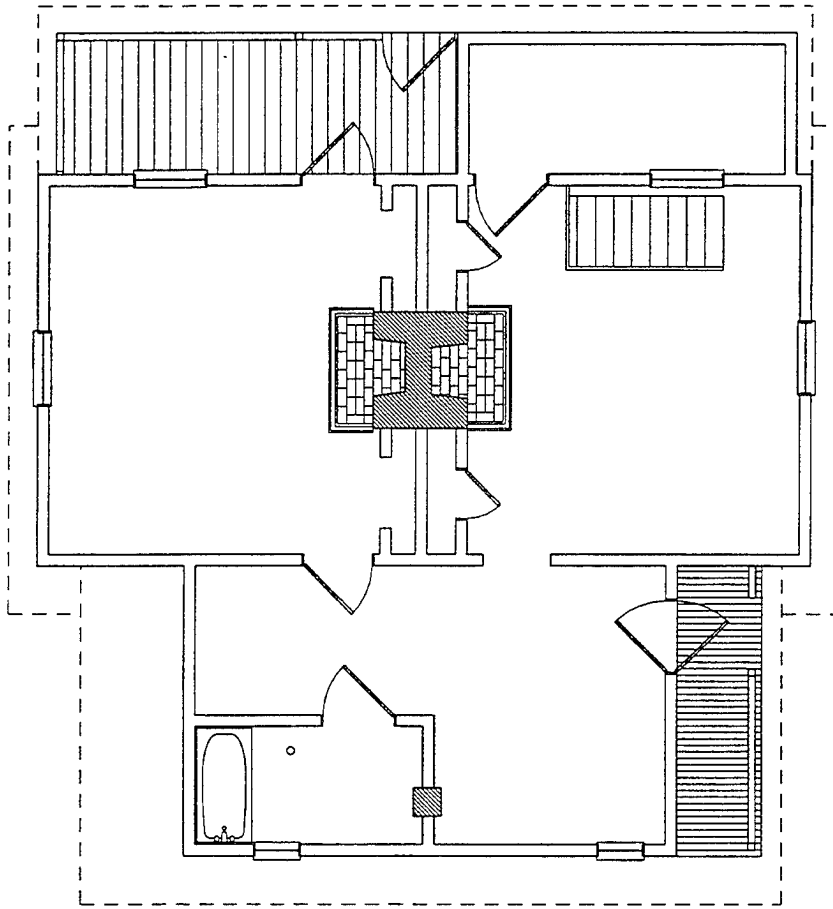
RAILROAD SECTION HOUSES  
MAHANNA FARM TRACT, FLOWEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY

SHEET OF SHEETS



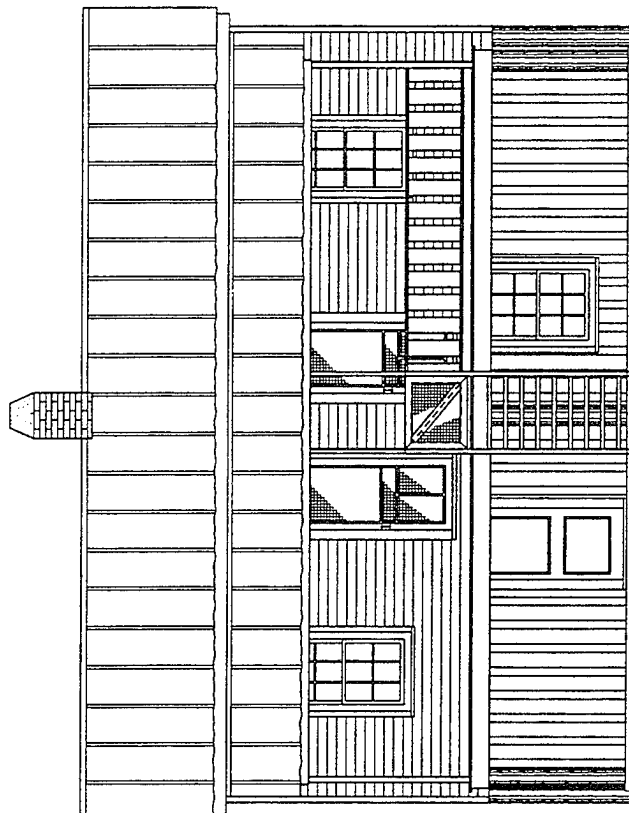


BUILDING B: THE CENTRAL SECTION HOUSE  
SECOND FLOOR PLAN

NAME AND LOCATION OF STRUCTURE  
**RAILROAD SECTION HOUSES**  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET OF SHEETS



EAST ELEVATION

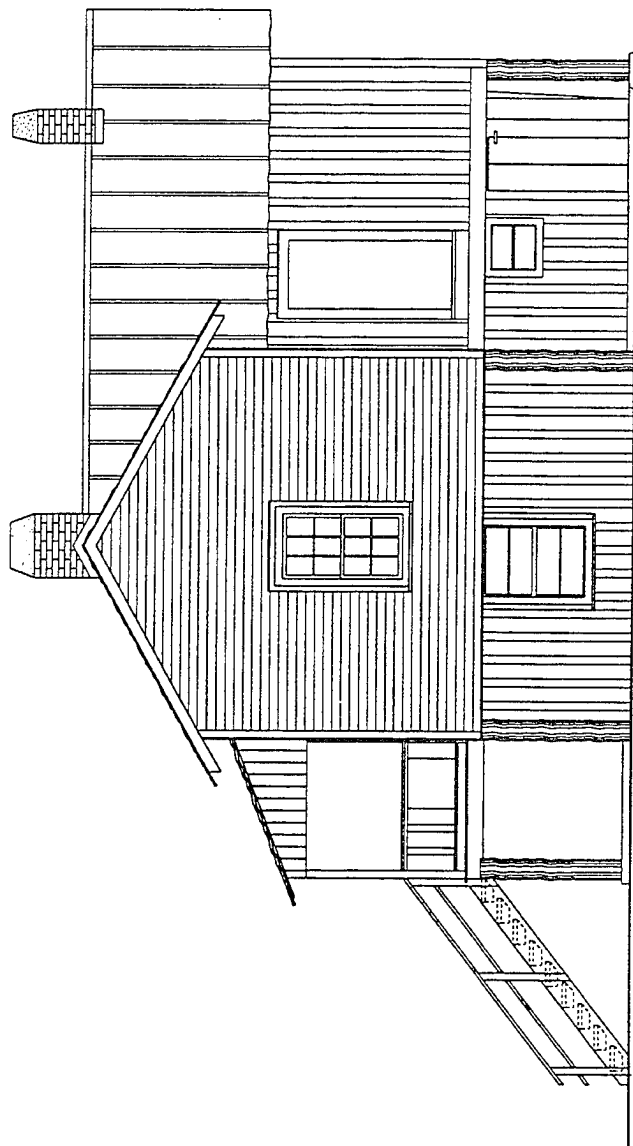


BUILDING C: THE NORTHERN SECTION HOUSE

NAME AND LOCATION OF STRUCTURE  
**RAILROAD SECTION HOUSES**  
MAHANNA FARM TRACT, FLOWEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET OF SHEETS



NORTH ELEVATION



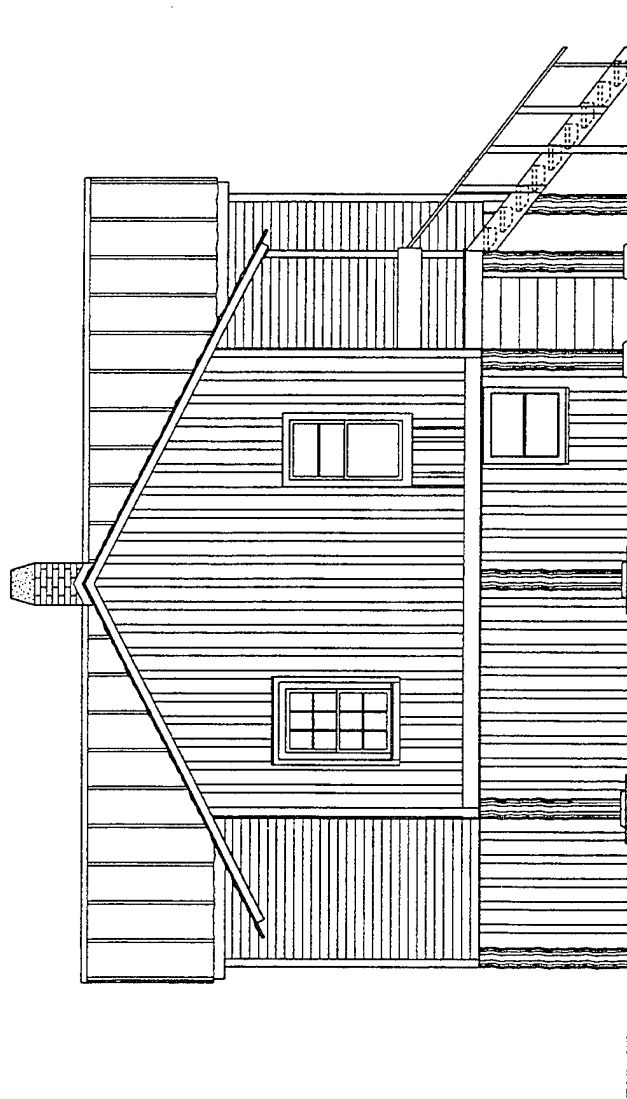
BUILDING C: THE NORTHERN SECTION HOUSE

NAME AND LOCATION OF STRUCTURE

RAILROAD SECTION HOUSES  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET OF SHEETS



WEST ELEVATION

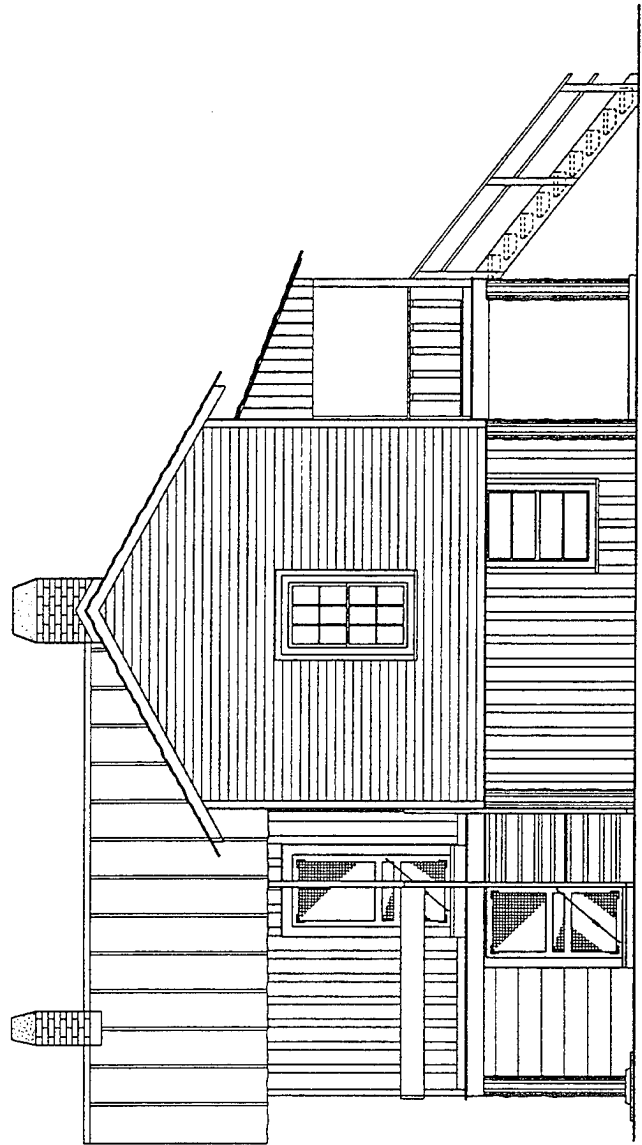


BUILDING C: THE NORTHERN SECTION HOUSE

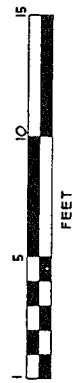
NAME AND LOCATION OF STRUCTURE  
**RAILROAD SECTION HOUSES**  
 MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
 BUILDINGS SURVEY  
 SHEET OF SHEETS



SOUTH ELEVATION



BUILDING C: THE NORTHERN SECTION HOUSE

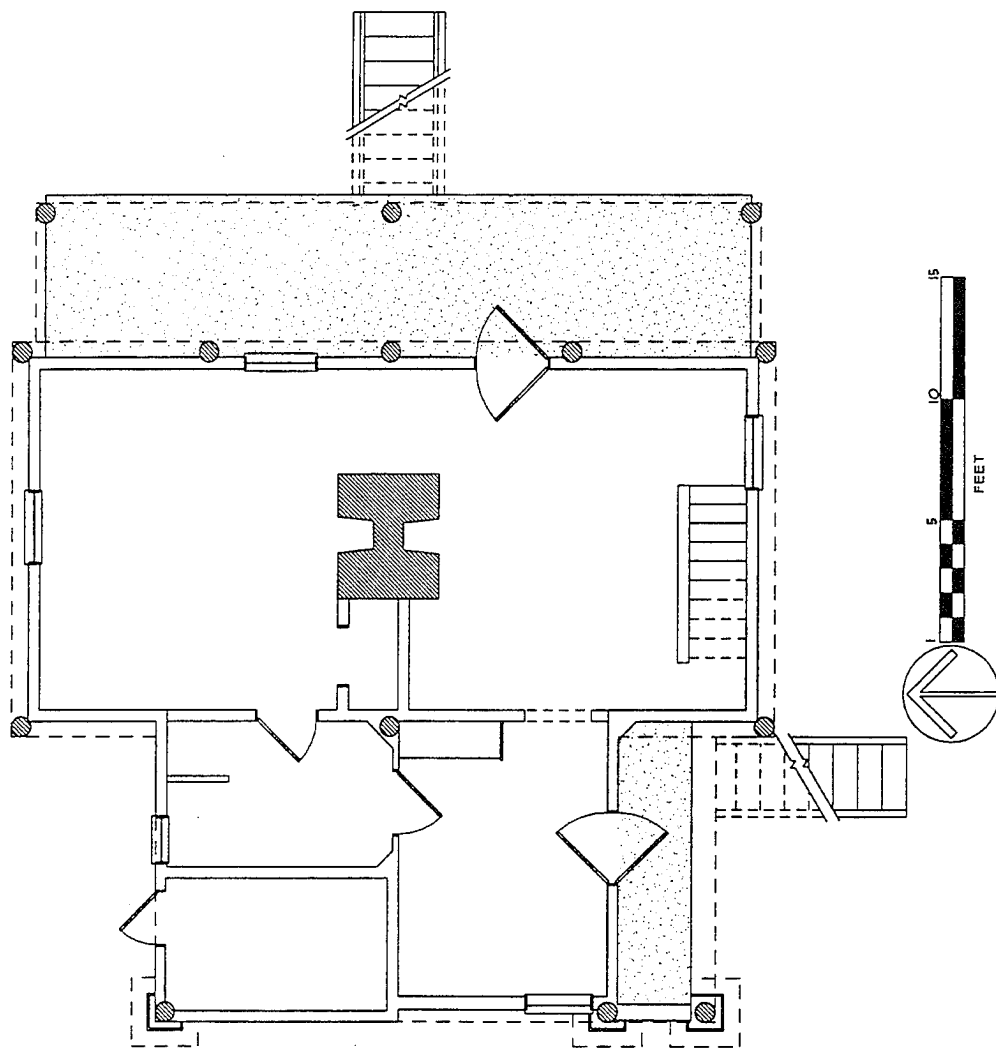
NAME AND LOCATION OF STRUCTURE

RAILROAD SECTION HOUSES  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY

SHEET OF SHEETS

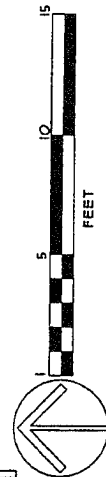
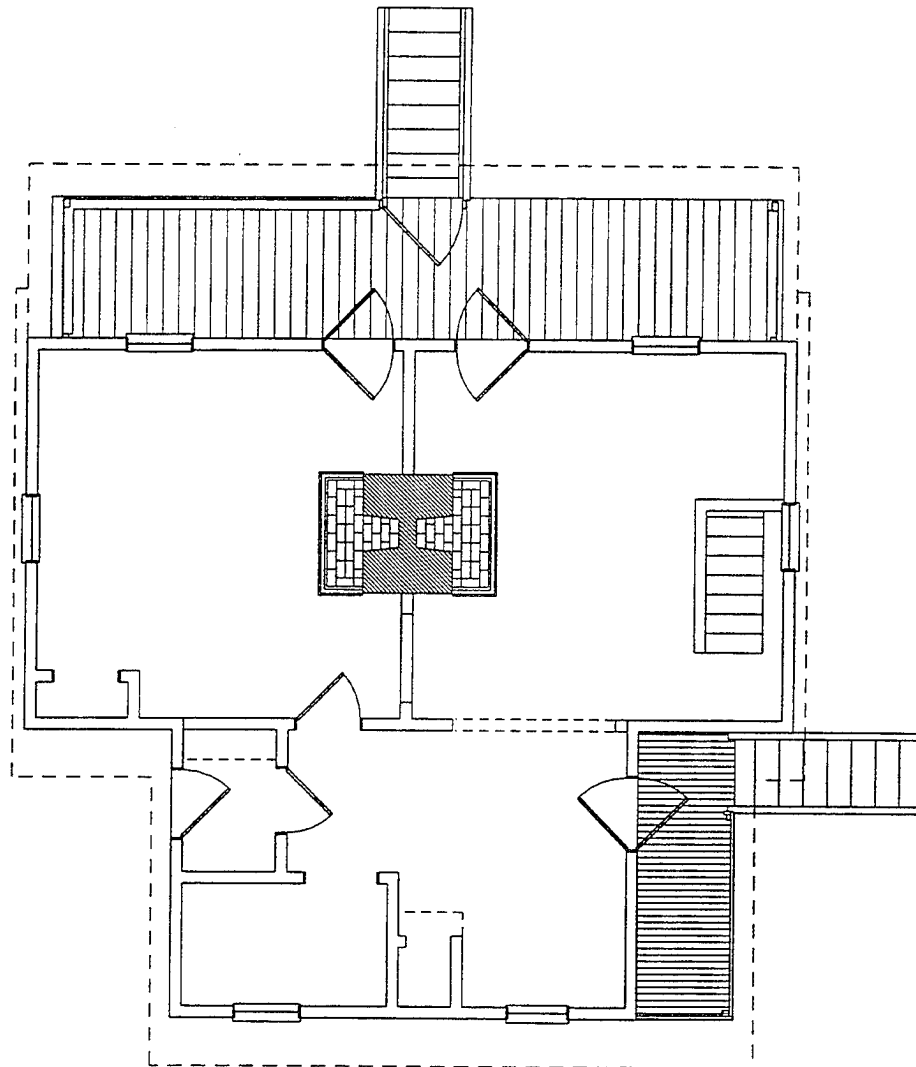


BUILDING C: THE NORTHERN SECTION HOUSE  
FIRST FLOOR PLAN

NAME AND LOCATION OF STRUCTURE  
RAILROAD SECTION HOUSE  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY  
SHEET OF SHEETS



BUILDING C: THE NORTHERN SECTION HOUSE  
SECOND FLOOR PLAN

NAME AND LOCATION OF STRUCTURE  
**RAILROAD SECTION HOUSES**  
MAHANNA FARM TRACT, FLOWEEEE, MISSISSIPPI

SURVEY NO.

HISTORIC AMERICAN  
BUILDINGS SURVEY

SHEET OF SHEETS